THIRD WORLD

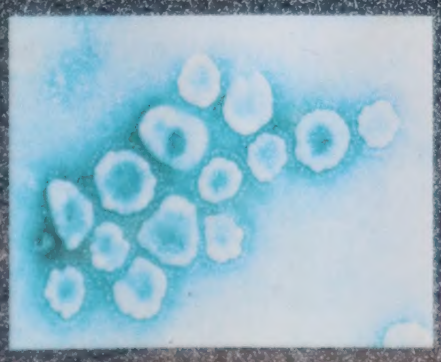
RESURGENCE

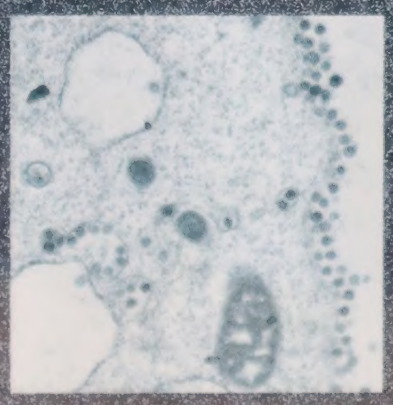
ISSUE No. 155-156 KDN PP6738/1/04

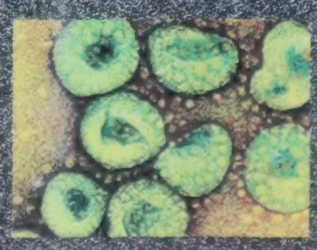
www.twnside.org.sg

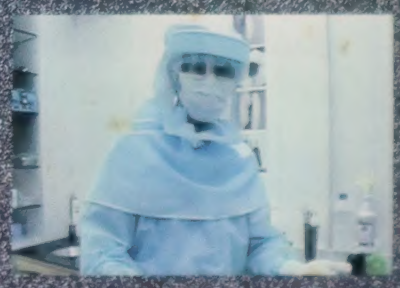
SARS and NEW DISEASES

Causes and Implications









SPECIAL FEATURE

Alma-Ata 25th Anniversary

Double Issue

Editor's Note

THE outbreak of new diseases like SARS, coupled with the resurgence of 'old' diseases like tuberculosis and malaria around the globe, has triggered widespread concern and debate about the factors that have contributed to this whole phenomenon.

While the resurgence of 'old' diseases which were thought to be on the way towards elimination as a result of the advances in medicine has ceased to cause much of a stir in the mass media, it is the shock caused by the outbreak of new diseases like AIDS and, more recently, SARS that has opened anew this debate.

The speed with which SARS spread across the globe, the significant human toll it exacted, and the many unanswered questions about its origins and causes have jolted public complacency.

The mysterious way in which the disease abated, along with recent reports that SARS-like viruses have been found in China, has only served to deepen the sense of fear and apprehension as to the cause of such epidemics.

It is now clear that the naive optimism of the 1970s that induced the belief that infectious diseases would be a thing of the past and the world would have to confront only chronic and degenerative diseases like heart disease and cancer in the future, was an illusion.

There is no way of completely escaping the problem of infectious diseases. It is one that we will have to continue to confront in the future.

While there is no way of completely eliminating this problem, we can more effectively limit the number and variety of such diseases and cope with any resultant outbreaks by understanding the factors that give rise to their emergence and reemergence.

When we turn to the question of the causes, it is evident that there is no single factor that is responsible for such pandemics. While some causes may not be preventable, there are others which are.

It is beyond doubt that the single most vital cause of such outbreaks is human activity. By ruthlessly destroying our environment and ecology, by creating conditions for climate change, by our reckless use of pesticides and antibiotics, by adopting farming methods that create conditions for the spread of diseases, we have contributed in large measure to the emergence and reemergence of infectious diseases.

And while creating the conditions which facilitate outbreaks of disease, we have at the same time pursued policies which have undermined the essential public health systems and social and economic foundations necessary to prevent and combat such outbreaks.

As there is no single cause for the outbreak of contagious diseases, there is clearly no single answer for its resolution.

In this respect, the idea promoted by the pharmaceutical industry and, even more stridently, by the biotechnology industry that new drugs and vaccines are the answer to this problem must be given short shrift. The exclusive focus on chemical therapies does not address the heart of the problem and, in the case of genetic engineering, is probably part of the problem rather than a solution.

What is required is a multi-pronged preventive strategy. Specifically it must address the problem of human activity which generates the conditions for the development and spread of pathogens. The whole range of human activity which adversely impacts upon the environment and ecology, our current methods of farming and livestock breeding, waste disposal, the use of fossil fuels, the generation of pollution and conditions leading to global warming, must be reappraised with a view to preventing the development and spread of vectors responsible for infectious diseases. Above all, the battle for proper public health systems and the worldwide struggle against poverty and inequity must be intensified.

In our cover story for this issue, we explore the causes for the emergence and reemergence of infectious diseases. Apart from an invaluable general survey of the problem and the strategies needed to combat it, we publish articles which focus on the different causes of such outbreaks. We hope this multi-faceted approach to this serious problem will help activists and all interested in this subject to better appreciate the strategies and policies needed to combat it.

– The Editors

Third World
RESURGENCE
www.twnside.org.sg
No 155/156 July/Aug 03 ISSN 0128-357X

COVER: Hospital workers outside a SARS clinic in Beijing. The outbreak of new diseases like SARS has refocused global attention on the emergence and re-emergence of infectious diseases. 5

THIRD WORLD RESURGENCE is published by the Third World Network, an international network of groups and individuals involved in efforts to bring about a greater articulation of the needs and rights of peoples in the Third World; a fair distribution of world resources; and forms of development which are ecologically sustainable and fulfil human needs.

THIRD WORLD RESURGENCE is published monthly by Third World Network, 121-S Jalan Utama, 10450 Penang, Malaysia. Fax: 60-4-2264505.

Printed by Jutaprint, No. 2, Solok Sungai Pinang 3, 11600 Penang, Malaysia.

Cover Design: Lim Jee Yuan

ECOLOGY

India's waterbahn mania

A grandiose scheme that dwarfs all others in scale and conception, India's river-linking plan is facing a storm of criticism, even as the government attempts to hurry through a consensus. *Rahul Goswami* outlines the promises and the projected costs, both financial and social.

THE Indian government is intent on ramming through broad agreement over an infrastructure project of gargantuan nature, one so colossal that its premise takes one's breath away – that the country's major rivers be linked, via a network of dams and canals, so that water may be redistributed from one river basin to another, floods may be contained, power may be generated and employment created.

One figure, amongst the welter that has been distributed to critics and doubters, whose ranks are growing, serves to convey the scale. It is estimated to cost US$120 billion (Rs5,500 billion), a sum that in current prices is equivalent to just under a quarter of the country's GDP.

Suresh Prabhu, the chairman of the task force that has been set up to steer the 'concept' (to critics of the grand scheme, officials from New Delhi carefully point out that it is not yet a project), has said that he expects the annual project cost, when complete in 2016, to be about 1% of GDP.

It is an optimistic assumption given the history of large water-related projects in India. The Five Year Plan outlays have invariably spilled over from one to another. One estimate – that of the National Commission for Integrated Water Resources Development Plan – of amounts needed for completing what are innocuously termed 'on-going' projects was Rs700 million (US$15.2 million) in the Tenth Plan (which ends in 2007) and Rs1.1 billion (US$23.9 million) in the Eleventh Plan. Where that allows for scope for new major projects, let alone one of this magnitude, is not clear.

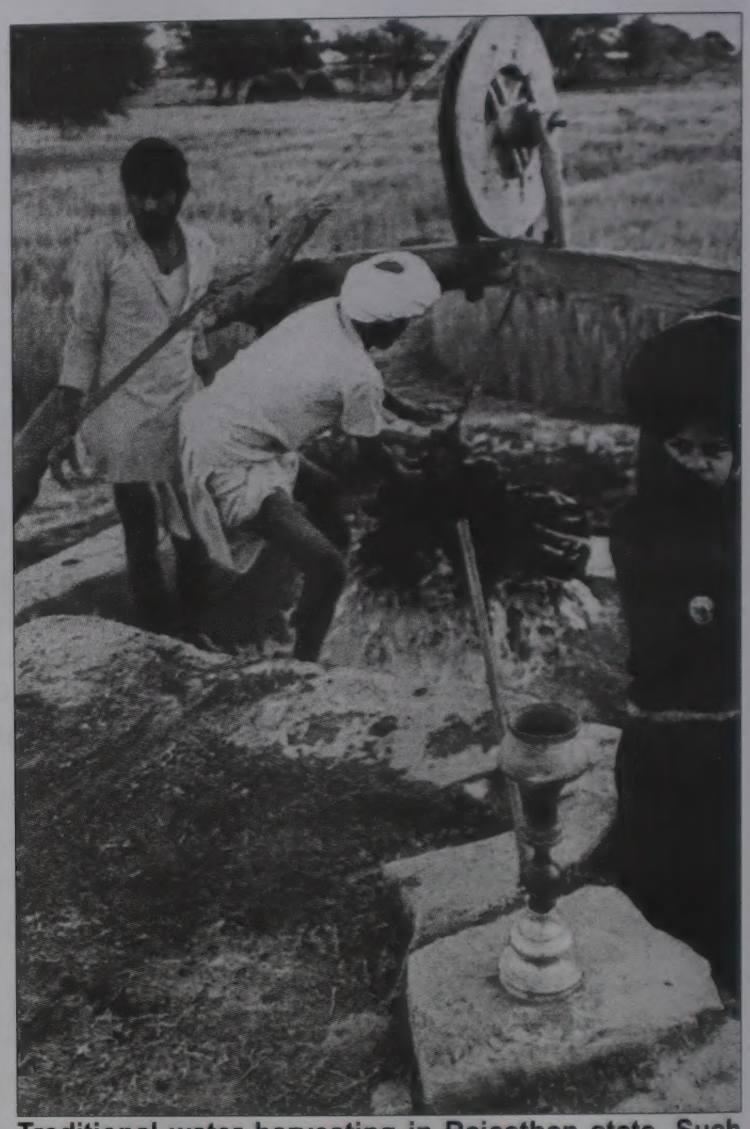
Is there a China syndrome at work behind the Bharatiya Janata Party government's gadarene rush to get from concept to project as quickly as possible? Some critics think so, against the background of real and perceived Sino-Indian rivalry. As enormous as China's Three Gorges project is, it is small beside the plan to transfer water from south to north, one first proposed half a century ago by Mao Zedong.

The project, approved by the Chinese cabinet in November 2002, entails a series of canals and aqueducts to transfer water from the Yangtze to the Yellow River basin. It is expected to cost some US$50 billion, more than twice as much as the Three Gorges. But next to India's river-link project, even this is dwarfed.

The size of what is being hurried through has led Ramaswamy Iyer, former secretary of the Ministry of Water Resources, and a member of the National Commission, to make a fundamental objection, 'not to the idea of "inter-basin transfer" per se, but to the grandiose nature – the gigantism – of the undertaking'.

It is, he says, 'a massive intervention in nature... it amounts to nothing less than the redrawing of the geography of the country. It appears to me that this is a severe case of technological hubris of a kind that (one thought) had been discredited and was a thing of the past.'

For such a sweeping concept, the lack of access to documents, data and feasibility studies pertaining to the project – 14 river links in the Himalayan component and 16 in peninsular India – is worrying non-governmental organisations, civil society groups, academics and even the National Commission.



Traditional water harvesting in Rajasthan state. Such measures have been shown to be successful in countering drought even in low-rainfall areas.

The Commission examined the proposals on interlinking by the National Water Development Agency – which promotes the optimum utilisation of water resources in the country and prepares feasibility reports for the inter-basin transfer of water – but was precluded from examining the data relating to the Himalayan rivers. Those are confidential matters, the Commission was told.

Prabhu, a former minister for environment and industry, insists that all is transparent and that reports on the project are indeed available to all. His caveat: 'However not all the studies are complete, most are still underway. Also, the reports are highly technical and will not be of interest to the pub-

lic at large.'

What has been made known to the public at large of the river-link project has been summarised by Chetan Pandit, chief engineer in the ministry, as:

- It is a 'bouquet of several projects' (30 in all) rather than a single project.
- It will help prevent floods in several states.
- It will help counter drought in 11 states.
- The project will bring under irrigation an additional 35 million hectares of land.
- It will be a net generator of 34,000 megawatts of hydro-electric power.
- It requires consensus among states sharing river basins for the transfer of 'surplus' water.
- International agreements with Nepal and Bhutan will be needed for the construction of dams.
- Dams will submerge 'forest land and habitations' and project-affected populations will require rehabilitation and resettlement.
- Land will need to be acquired 'for long and wide canals'.
- 'Traditional technologies like rainwater harvesting and watershed development are also important but there still is no quantitative estimate of their impact.'

Source of conflict

The fly in the ointment of course is that water is the source of a great many conflicts, within the country and between India and its neighbours. Those representing India's Water Resources ministry are on record as saying that neighbours like Nepal and Bangladesh will be informed of the plans when necessary, and that it has no doubt that agreement can be reached.

This optimism seems panglossian by even the most conservative assessment, and accounting for the troubled recent history relating to the subject. The waters of Nepal's river systems like the Kosi (which has now become a tired political reference to those living in the state of Bihar), the Gandak, Karnali and Mahakali will all need to be tapped if this proposal is to be realised. Has the impact of Indian-built dams on the Nepal terai at all been discussed in a neighbourly manner? We are left guessing, but the indications from Nepal are that they have not.

Nor is the relationship with Bangladesh, fractured by regular disputes over the flow of the waters of the Ganga and further soured by spats over alleged movements of militants between both countries, any better.

The Farakka Barrage, built across the Ganga just before it becomes the Padma in Bangladesh, has famously affected the migration and spawning patterns of the 'hilsa' fish, also called the Indian salmon, the stuff of culinary legend in greater Bengal. But it is not only the fate of the sought-after hilsa that is at stake here. India has long claimed the diversion of 40,000 cubic feet of water per second at Farakka to prevent the Hooghly, a distributary along which the megapolis of Kolkata (Calcutta) lies, from choking up with silt and making the docks inaccessible for large ships.

Bangladesh has for years cried foul about the effects of the barrage, maintaining that the reduced natural flow of water in the Ganga has affected agriculture, fisheries and navigation. The lower riparian claims that another distributary of the Ganga is drying up, causing increased salinity and endangering the freshwater mangrove forests, the Sundarbans, in the Gangetic delta. When Bangladesh seeks data on Ganga water flows, however, it encounters a procedural firewall. This is 'sensitive data', our neighbours are told.

But even within, India is known for major water-related conflicts, whether it is between Haryana and Punjab in the north, or more recently between Karnataka and Tamil Nadu in the south, over the waters of the river Kaveri. This is however not just a series of conflicts among states, but also, inevitably, water-related conflicts between officialdom and the people.

Still, Prabhu maintained in an interview: 'I am speaking to all the states bilaterally and of course no one has any problem as they are all going to benefit out of it.'

Dr Sudhirendar Sharma, who is attached to the New Delhi-based The Ecological Foundation, has no such illusions. 'Presenting a project that will link 10 rivers passing through 25 states will indeed turn out to be a modern version of the Mahabharat (the Indian epic),' he wrote in a comment, 'proving that the next war will indeed be fought around water engaging 25 chief ministers and over half a billion people!'

And still the water bureaucracy clings to its mantras. Neither the ministry nor the National Water Development Agency seem to have noted, much less recognised, that opinion on flood control has changed over the years. That big dams play only a modest role in moderating floods is now generally recognised. 'By now,' states the South Asia Network on Dams, River and People, 'this has almost become conventional wisdom. Even if all the river-linking proposals are implemented, the contribution that this will make to the mitigation of the flood problem will not be substantial.'

The outdated notion of flood control is changing to newer ideas (though not, from all appearances, amongst India's water bureaucracy) of learning to live with floods and minimising damage, and to make this change requires greater reliance on non-structural than on structural measures.

'Without any open data availability on the river flows at various appropriate points and the extent of the flood cushion that will be kept in the proposed Himalayan dams, it is simply not possible to accept the claim of flood control by the interlinking project,' said Jayanta Bandyopadhyay, professor at the Centre for Development and Environment Policy of the Indian Institute of Management, Kolkata.

At a meet in July 2003 on water and sanitation, organised by the Water Supply and Sanitation Collaborative Council (WSSCC) of Geneva and held at the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, Bandyopadhyay warned: 'While such claims may make the project more attractive to politicians, the scientific credibility of the idea of controlling

monsoon floods in the Himalayan foothills by multipurpose dams is exposed to serious doubts.'

Where drought is concerned, we have the answers already. Rajendra Singh, the 2001 Magsaysay Award winner, has shown in Alwar district in the north-western state of Rajasthan that rainwater harvesting can be practised successfully even in low-rainfall areas. Earlier, social reformer Anna Hazare had brought about a transformation through water harvesting and other measures in the village of Ralegaon Siddhi, also a low-rainfall area in the western Indian state of Maharashtra.

Meanwhile, the Madhya Pradesh state government in central India has initiated a statewide programme of water harvesting and conservation. In peninsular India the large numbers of tanks in the states of Tamil Nadu, Karnataka and Andhra Pradesh – remarkable water management systems that have gone into decline – are being restored and rehabilitated. So also with the 'ahars' and 'pynes' in populous Bihar state, and 'johads' in Rajasthan.

Yet under the big dam model newly irrigated lands are often used to grow thirsty cash crops instead of traditional staples for direct consumption, leaving farming families at the mercy of the global market. There is also a huge ecological price to pay. In India, land irrigated by well water is twice as productive as that fed by canals, which instead raise water tables excessively, causing water-logging and salinisation.

And the 'long and wide canals' that are the waterbahns of this blueprint national water grid will certainly invoke the Land Acquisition Act of 1894, originally passed by the British, which allows for the confiscation of properties on grounds of 'public interest'.

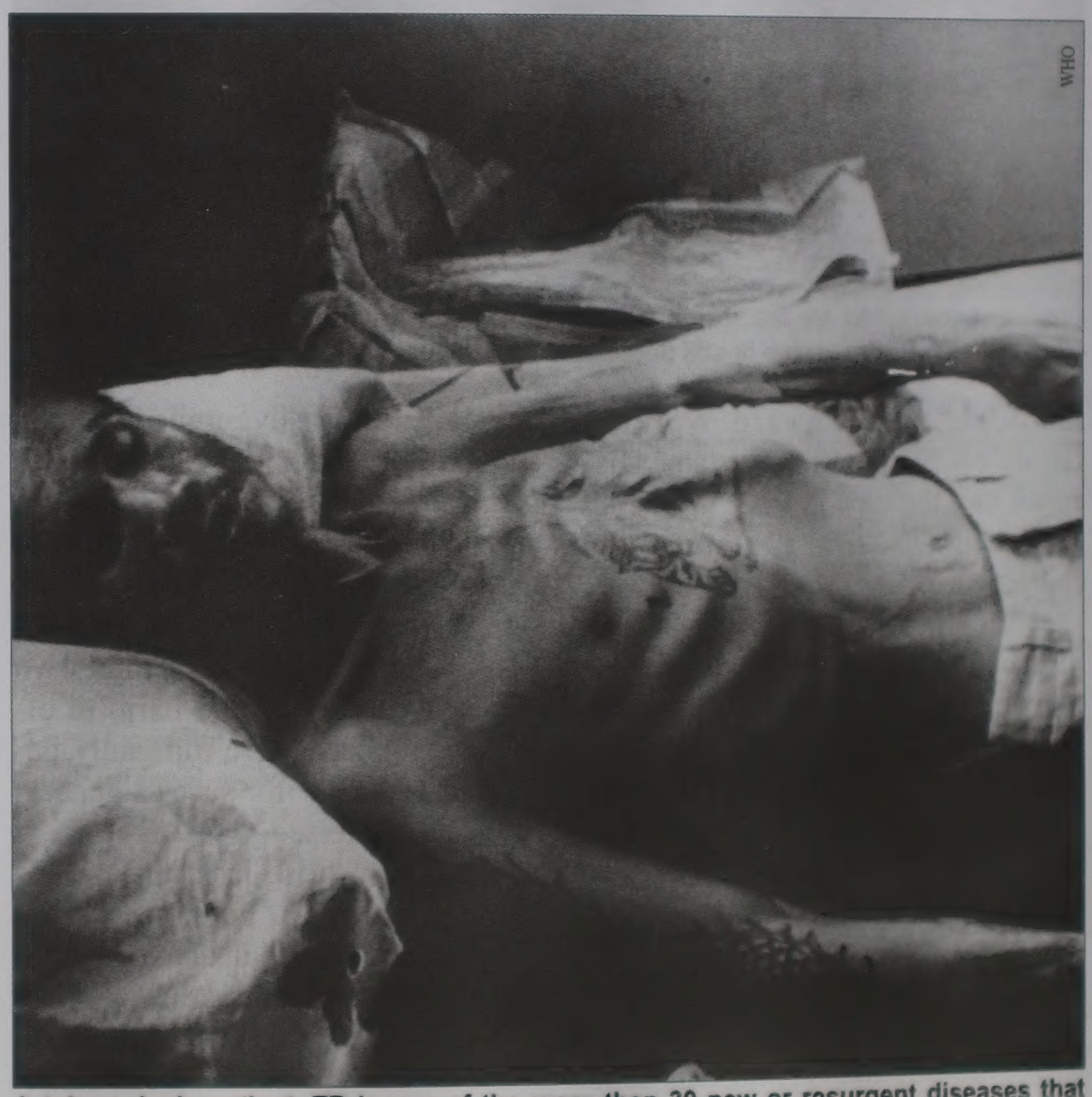
The river-linking project is a Brobdingnagian scheme that costs as much as 50% more than the country's current foreign exchange reserves, one that will affect millions of lives and dozens of ecosystems, and yet one whose 'public interest' has still not been defined. ◆

Rahul Goswami is a journalist based in Singapore, is associated with Inter Press Service, and writes about issues concerning the South.

The re-emergence of infectious diseases on the public health agenda

The optimistic expectation of the 1970s that infectious diseases would soon become a thing of the past has been belied by the emergence in recent years of new infectious diseases and the re-emergence of 'old' ones. Humankind will have to live with the perennial element of uncertainty, but we can better respond to the inevitability of surprise by learning how other species cope with environmental change. In confronting the problem of the emergence and re-emergence of diseases, what is required is not a rush for more drugs and vaccines, but a whole-system approach which takes into account all the determinants of health, which the existing medical and public health systems have failed to do.

Richard Levins

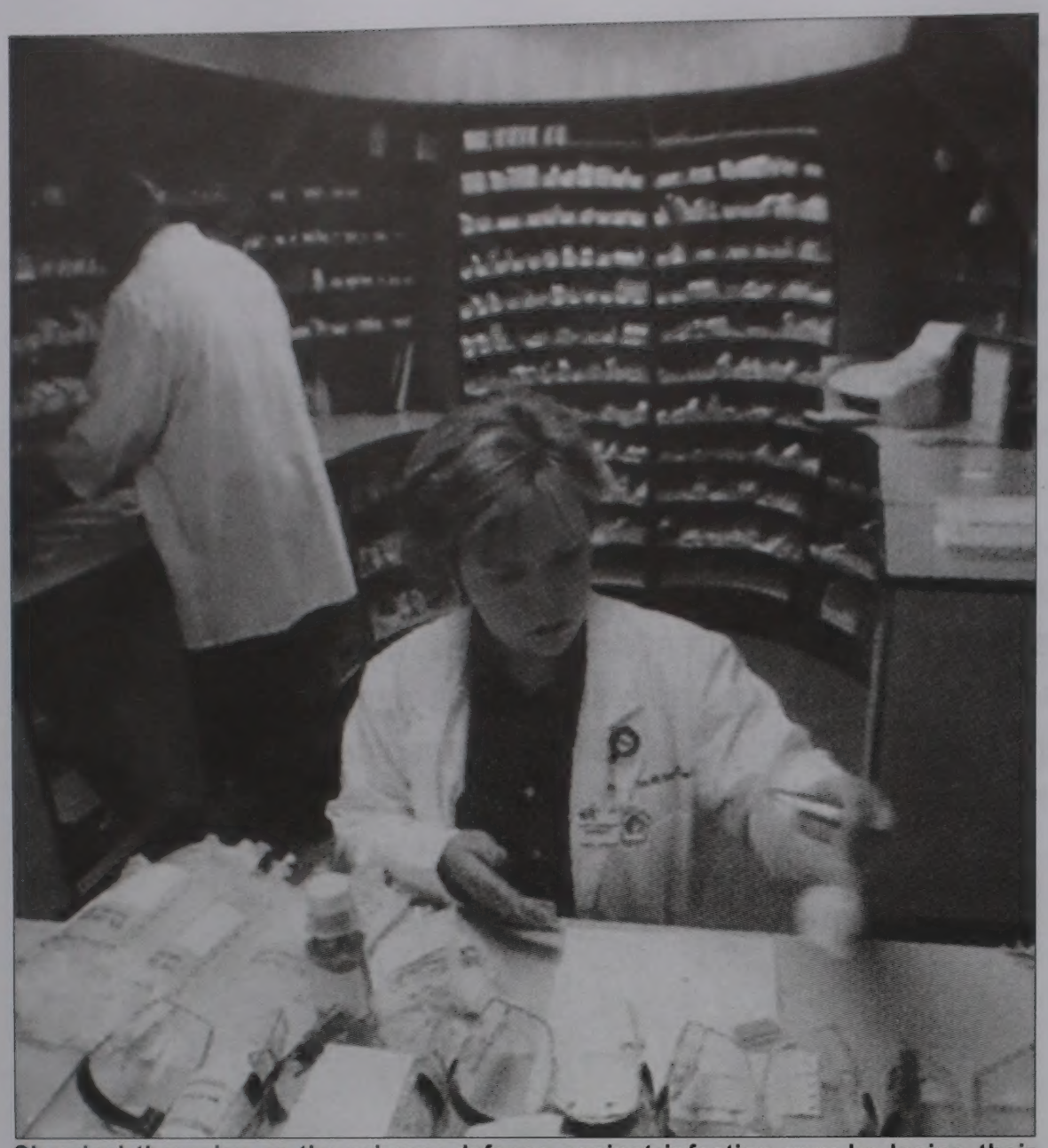


A tuberculosis patient. TB is one of the more than 30 new or resurgent diseases that arose within a few short years to change the outlook of a medical fraternity which had begun to shift its emphasis away from infections.

A SCIENCE fiction story I read too long ago to be able to cite began, more or less, 'It was the 25th century, and disease had long ago disappeared.'

Of course, infectious disease never did disappear. But in the 1970s the doctrine of the epidemiological transition proposed that with economic development the emphasis in public health would have to shift from infections to chronic and degenerative diseases. Medical students were discouraged from studying infectious disease – they were told it was a dying field. The Department of Epidemiology at Harvard dropped infectious disease from its concerns in order to concentrate on heart disease and cancer. Ministers of health from Third World countries boasted that their people were now dying of cancer and heart disease instead of tuberculosis and malaria, and saw this as a sign of modernisation.

Then Lyme disease, legionnaires' disease, toxic shock syndrome, Nipah virus, HIV/AIDS, Venezuelan haemorrhagic fever, Bolivian haemorrhagic fever, Argentine haemorrhagic fever, hanta virus, hepatitis C, Ebola, Lassa fever, Marburg virus, Jacob-Creutzfeld disease (the human version of mad cow), Pfeisteria neuropathy, all rushed into the headlines. Cholera reappeared in a worldwide outbreak, tuberculosis returned with a vengeance and malaria, after ceding ground to the World Health Organisation's (WHO) international programme, resurged even where it was thought on the verge of elimination. There are frequent outbreaks of bacterial meningitis, cryptosporidium, and dengue. More than 30 new or resurgent diseases arose within a few short years to change the outlook of the profession. In the United States the Institute of



Chemical therapies as the primary defence against infection may be losing their effectiveness. But research is still dominated by the quest for such chemical weapons.

Medicine, the Harvard Working Group on New and Resurgent Diseases, and the new journal *Emerging Infectious Diseases* all took up the challenge.

But before we rush into looking for new vaccines, it is worth examining why public health was caught by surprise. In one sense, surprise is inevitable in science because the only way to study the new is treating it like the old, already known. There is enough coherence in the world so that new phenomena are sufficiently similar to the old to make science possible. A new virus disease such as SARS appears and very quickly laboratories go through their protocols and a virus is identified. But things in the world are also surprisingly different, making science necessary. An entirely new disease agent, the prion, was eventually implicated in the neuro-degenerative diseases such as mad cow disease, and chronic wasting disease, its analog in wild cervids. But diseases strongly linked to social relations are less easily studied. It took some 50 years for the United States to acknowledge black lung disease among miners after the British recognised it as an occupational disease. The difference was that the British workers in those days had their own political party. And the harmful effects of tobacco were militantly denied by industry for several generations of smokers.

But if surprise in science is inevitable, particular surprises can be avoided and we needn't have been so surprised by the stubbornness of infectious disease. After all, the proponents of the 'epidemiological transition' were serious scientists, just as smart as we are. If they made a major error of strategy, it could not have been simple carelessness: the doctrine was plausible for a number of reasons.

The expectation that infectious disease would disappear rested on several grounds:

1. Infectious disease had been declining in the developed industrial countries for one or two centuries. Leprosy, polio, typhoid fever, yellow fever and others were much reduced, smallpox was on the verge of eradication.

2. In the 'war' with the microbes, the pathogens depended on the same old weapons they always had (mutation) whereas we were developing new tools through active research, especially antibiotics and vaccines. This led to a naive optimism that expected parasites of humans to be eliminated as we have practically eliminated predators. (There are only a very few cases per year of people killed as prey by lions, tigers, crocodiles or sharks.)

3. Economic development would bring the affluence of the advanced industrial countries (the 'West') to the whole world, making the new advances of clinical medical technology available to everyone.

4. Infectious disease affects mostly the young. An aging population would therefore be less vulnerable.

Each of these arguments was flawed.

History and ecology

The examination of only the recent history of Euro-North America hid a greater pattern. The most elementary kind of prediction proposes that things will continue as they had been. Only a little more sophisticated is the idea that existing trends will continue. But a look at the longer sweep of history and a broader geographic perspective would have shown that infectious disease waxes and wanes with changing conditions.

The pandemics of plague in 6th century Rome and 14th century Europe occurred in populations already stressed by social pressures. Agricultural development, especially irrigation and dams, allowed the spread of mosquitoes and snails carrying malaria, Rift Valley Fever, schistosomiasis and other infections.

Modern water management created the habitat for Legionella, previously a widespread but never very abundant bacterium because it was a poor competitor. In the pipes of cool-

ing and heating systems its higher temperature tolerance and ability to avoid chlorine by encysting inside proctists finally gave it the competitive advantage it lacked in the wild. Hospitals promoted the transmission of nosocomial infections such as *Staphylococcus aureus* by hospital staff among weakened patients. More common use of injections in poor communities leads to improperly sterilised reused needles that can transmit HIV. Dengue spread in the rapidly growing tropical cities. Mad cow disease introduced us to prions, a new class of disease agents, and was spread by the industrial recycling of animal waste in feed in the United Kingdom along with Margaret Thatcher's deregulation of the process that allowed the lowering of the sterilisation temperatures for processing that material in order to reduce expenses.

A new doctrine was needed: **Every change in demography, vegetation, land use, technology, economics and social relations is also a potential change in the ecology of pathogens and their reservoirs and vectors and therefore a change in the pattern of infectious disease epidemiology.**

Physicians are well-educated people, and in Europe at least they knew their classical history. If the past was not examined even when diseases were known since Biblical times, it may have been because there was a sense of modernity erasing the past. History is irrelevant because our world is so new, with science and technology rooted in the present. Or as Henry Ford said, 'History is bunk!'

Disease in other species

Public health epidemiology did not pay attention to animal and plant disease. But similar phenomena were occurring in domestic and wild animals (avian influenza, African swine fever, feline leukaemia, mad cow analogs in ungulates, die-offs of marine mammals and amphibians) and crops (tristeza of citrus, tungra virus in rice, Gemini viruses such as golden mosaic in beans that are spread by whiteflies).

Had we stepped back and looked at the whole pattern, it would have been obvious that something is going on making many species more vulnerable to infections. Each case is unique, and it is possible to offer specific explanations without seeing the whole. For instance the chytrid fungi have been implicated in the dying of amphibians, but why has this worldwide pathogen suddenly become capable of decimating many species?

Evolution of pathogens

Since the time of Koch and Pasteur, epidemic research emphasised the pathogens, identified as the 'causes' of diseases. And these were treated independently of each other, with the critical events being exposure and infection. Even when cases of antibiotic resistance were recognised, they were for a long time treated as unfortunate problems that we would solve with new drugs.

But something new is happening. Human activity has created new opportunities for pathogens to exchange genes directly or through plasmids. When the use of antibiotics disrupts the community of hundreds of species in our bodies, many decline and the survivors become highly abundant so that there are more opportunities to meet and interact both ecologically in competitive and mutualistic ecological relations and also genetically. Travel and voluntary or involuntary migration brings local strains together allowing for gene exchange. The careless use of antibiotics has created the environments that favour strong natural selection for antibiotic resistance. The result has been the appearance of multi-resistant strains of tuberculosis, streptococcus, and other bacteria, and the first appearance of HIV resistant to drug therapy has been reported. Mae-Wan Ho, in the pages of this journal (see *TWR* No. 151-52 and the article on pp.18-19 of this issue), has argued that laboratory research in genetic engineering has increased the rate of recombination among viruses by many orders of magnitude, allowing for the release of new plagues.

This requires further comment. Modern laboratories have an advanced technology employed to contain the viruses and prevent accidental release. The probability of an accidental release is quite small. But the more complex any engineered system, the more places for things to go wrong. As we have seen in the case of the Columbia shuttle disaster, the cutting of corners to save expense increases the risks. In the case of the Milwaukee outbreak of Cryptosporidium, a modern water purification system was relatively safe, but only relatively. And when it did break down the effects were far-reaching, with some 400,000 cases of infection. The Exxon Valdez was also a modern tanker, safer than the older, smaller ships. But when human error led to the spill, it was a big one.

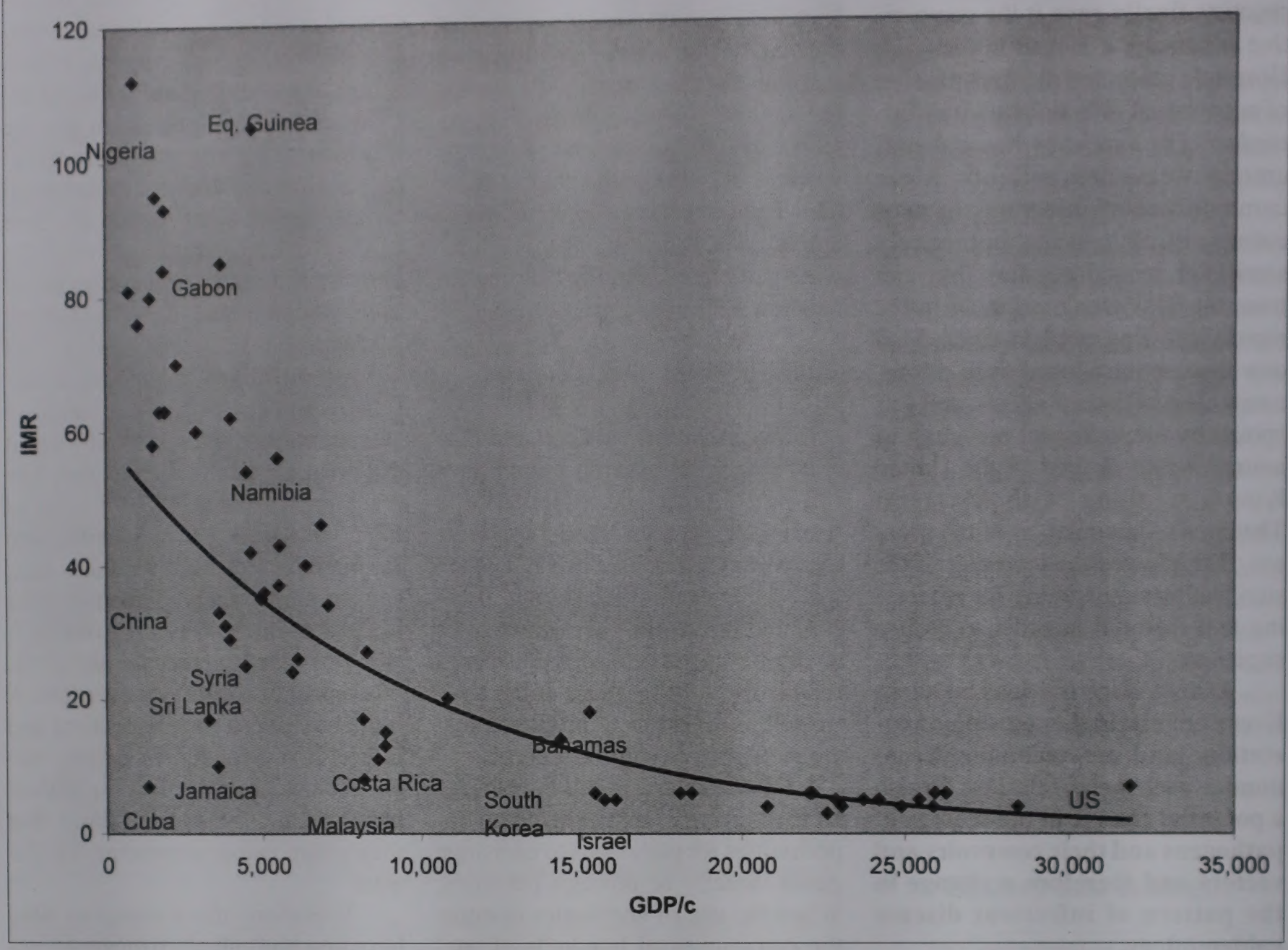
Thus, modern precautions are no guarantee against major disasters. A large number of pharmaceutical and biotech firms racing for patents, eager to exaggerate the benefits of their products and belittle the harm that they might cause, is a recipe for disaster.

Therefore the pathogens also have new and enhanced means to create genetic novelty and spread it in the environment.

Chemical therapies as the primary defence against infection may be losing their effectiveness. The era of antibiotics may be a brief episode, a successional stage in our relations with the pathogens, and whole new approaches may be required. But research is still dominated by the quest for chemical weapons, in part because of the enormous profitability of drugs and in part because of the philosophical bias in favour of working with molecules and genes as somehow more fundamental than studying ecosystems or poverty. **Instead of seeing public health as a war against an irreconcilable foe, we have to see it as renegotiating our relations with the microbial world in the direction of benign co-existence.**

One possible evolutionary strategy is to treat severe cases of a disease curatively and with isolation and

Figure 1: Infant Mortality as function of GDP/capita



mild cases palliatively. Then those genetic variants of the pathogen which are less virulent will be selected over the more virulent kind and may eventually join our body's flora as good citizens along with the several hundred kinds of bacteria that normally live in our guts without causing harm and indeed contributing to our well-being.

Whose affluence?

The economic development that promised access to all health-promoting processes never happened. Health depends not only on access to curative medical care but also on nutrition, pollution, and stressors in the physical and social environment. The GDPs of many countries certainly have increased, but that did not necessarily create the equity needed to improve health. In Figure 1 we see a representation of the relation of GDP to infant mortality (IMR). We note three things: First, there is a general trend toward lower IMR with GDP. Second, there is enormous variation around this trend line, especially at the low end, and some poor countries have outcomes as good as the rich. (The scale makes it harder to see the variation among high-income countries. However Vicente Navarro (*The Political Economy of Social Inequality*) has shown for the 'West' that in general countries with social democratic regimes have better health for their income than Christian Democratic countries, and these in turn are better off than the liberal democracies.) Finally, Cuba lies off the curve. Cuba is not moving along the development curve but following a different pathway of development. This would show up in similar graphs plotting educational expenditures, student achievement, literacy and other measures.

Within countries there is also wide variation even in the face of poverty. The states of Kerala and West Bengal in India, both under long-term left leadership, have health indicators above what would be expected for their incomes. Within the United States, there are big discrepancies by race and class so that Washington DC has indicators comparable to poor Third World countries and a third of the counties of Kansas have yet to catch up to Cuban levels.

These results are partly due to equitable access to health care. But health is determined in a larger terrain than health care or even classical prevention. What happens to people also depends on strong labour movements defending occupational health and safety, commitment to sustainable environmental relations, narrow spread of income, a broad social safety net, and investment in those localities that most need it. We have

seen time and again that economic development has exposed people to chemical pollution from pesticides and from industrial activity, loss of natural enemies of disease vectors, and debasement of nutrition as production becomes the export of commodities while the dumping of agricultural surpluses from outside impoverishes farmers. A development strategy that gives priority to human needs before the accumulation of wealth, even when carried out unevenly and with many errors, contributes to health even in poor countries.

The Cuban experience is due to universal free medical care, a high degree of equity in income and social consumption, long-term commitment to science, the phasing out of pesticides and a commitment to sustainable, ecologically rational development.

The young get sick

Infectious disease afflicts the very young in part because their immune systems are not yet formed. But the main reason is that they had no previous exposure to those pathogens. If the incidence of infection is reduced it also strikes at a more advanced age and sometimes more harmfully.

Chronic disease can be infectious

The distinction between infectious disease and chronic or degenerative disease is not that absolute. It is now increasingly common to find pathogens associated with chronic conditions such as cancer (megacytomegaly virus, Human Papilloma Virus, and *Helicobacter pylori*, ulcers (also *H. pylori*), heart disease (Chlamydia) and others. Our health depends on strongly interacting processes that are separated into distinct disciplines but meet in our bodies.

We can look deeper into the sources of error. The course of development of science is not dictated by nature, but by complex interactions among the objects and tools of investigation, political economy, institutional organisation of research and education, and the prevailing philosophies. On the one hand, science reflects the general advance of human knowledge that accompanies (sometimes leading, sometimes following) our increasingly diverse and sophisticated relations with the rest of nature. But it is also the product of particular societies that support science selectively in various ways. The sciences created in Mesopotamia, Egypt, Greece, India, China, and meso-America have all been rooted in the social arrangements that determined who did science, what attracted their interest as problems, and what was considered a satisfactory solution.

In some ways, all knowledge is created in the same way: learning from experience and reflection on that experience in the light of previous knowledge. But each historical tradition is also distinct. What characterises our modern science, for the moment dominated by Euro-North America, is the sophisticated organisation of experience in order to find out. Separate institutions, procedures of recruitment and socialisation of scientists, growing commodification of the enterprise in private industry and in universities financed by them indirectly, military and commercial secrecy and proprietal rights all guide the directions of research and publishing. This creates the pattern of knowledge and ignorance with which we cope with new problems.

The emergence and re-emergence of infectious disease confronts us with the inevitability of surprise. New diseases do not fall into any special category. Some of the proximate causes are land use change, migration, new technologies, changes in the use of bush meat, sexual behaviour, and the agents may be viruses, bacteria, proctists, fungi or prions. They may be new genotypes arising by mutation or recombination, or rare organisms that have become common. They may be spread by air, food, water, or arthropod vectors. Therefore uncertainty itself has become an object of study.

One way of approaching uncertainty is by examining how other species cope with environmental change. There are four basic modes for coping, and these are not mutually exclusive:

1. **Detection and response.** In order to be effective, the detection has to be rapid and accurate and the response has to be rapid compared to the course of the epidemic. At present we have rapid laboratory methods for many of the known diseases, but there is a longer delay when we don't know what to look for. A priority has to be low-cost diagnostic tools that can be used in isolated clinics where refrigeration may be unreliable. However the limiting factor is not so much the speed of lab work as the delay in recognising that there is a problem and the even longer delay in taking measures such as isolation which may impose economic costs.

2. **Prediction.** We have good short-range prediction: an outbreak of a disease in one location is a prediction that it may also occur in a nearby location ('nearby' is relative to transportation). An outbreak of mosquitoes may predict malaria or dengue. Rain may predict mosquitoes. But there is much less knowledge of longer-range prediction. Here we have to resort to comparative epidemiology to consider: what is the host range of different groups of pathogens so that we know where to look for potential reservoirs; what viruses and bacteria are found in the wildlife of the region; which groups of pathogens have shown evolutionary plasticity, allowing them to change hosts, means of transmission, tissues affected, clinical pictures; what conditions make people especially vulnerable to infection and disease (these may include malnutrition, pollution, other infections, social stressors). A monitoring of wildlife and domestic animals would also serve as early warnings. Since this knowledge can only come from long-term fundamental research, it is likely to be treated as a luxury by the ministries of health of poor countries and by medical communities that pride themselves on being practical people facing urgent tasks with inadequate resources. Therefore it is important to create an environment friendly to this kind of

A Cuban doctor examining a patient. Health indicators in some parts of the US have yet to catch up to Cuban levels.

research.

3. **Broad tolerance, the generalised capacity to cope with unexpected diseases even without prior knowledge of their identity**. Schmalhausen's Law is a general principle that organisms in unusual or extreme conditions, at the boundary of their tolerance for any one aspect of their life conditions, are extremely sensitive to stressors in all aspects of their life conditions. Thus malnutrition inhibits the immune system and makes people more vulnerable to infection. Pesticide poisoning can prevent absorption of vitamin A, and this in turn reduces the T-cells and macrophages that are part of the body's defences. Diabetes makes bacterial infections more dangerous. Diarrhoea can make it easier for pollutants to pass through the lining of the gut, while any sexually transmitted diseases that irritate the reproductive tract facilitate the entry of HIV. Social and emotional stress and anxiety reduce immune capacity. Poor people are often afflicted by multiple insult, allowing even more ailments to accumulate. Therefore any struggle against poverty and racism and abuse based on gender is also a public health issue, and the health of a community has to be looked at not only disease by disease but also as a whole. Vulnerability itself becomes an object of study.

4. **Prevention.** This is a reaching out into the environment to create conditions under which the problem would not arise. Consider, for example, how the protection of health would influence the design of agriculture. Agriculture affects health in many ways. The first and most obvious is food. Malnutrition is still a major contributor to death, especially in children, deaths that are usually attributed to specific respiratory and gastrointestinal diseases. Production for the market often conflicts with other uses of water, so that a preventive strategy must protect the domestic potable water supply. Irrigation not only uses vast quantities of water but also lowers the water table sometimes beyond reach of hand pumps and can lead to sudden subsidence of the land. As in Bangladesh, the water table reached down into arsenic-laden strata. Agricultural run-off along with urban waste causes algal blooms, and along the coasts a flourishing of the vibrio of cholera that lives in the plankton. Pesticides poison people and the natural enemies of pests, allowing explosions of insects that reduce yield and facilitate outbreaks of mosquitoes that breed in the irrigation ditches. Changing crop patterns change rodent populations that carry their own viruses. Therefore prevention requires an epidemiological impact statement to accompany any major changes in land use.

A mixed strategy takes advantage of all modes of preparation. It is essential because we are so often mistaken, and a single strategy may be counterproductive. It also offsets the weight of fashion and profitability. The single-minded reliance on chemical therapies leaves us vulnerable when the pathogens adapt to the antibiotics and vaccines, the modes of defence preferred by the pharmaceutical industry. Similarly, the hype about genes 'for' particular diseases is usually misleading and fades away after the initial press conference. Since genes alter the quantities and locations of enzymes, they certainly affect the way people respond to stressors. But that is no excuse to ignore the stressors.

Therefore, while we decide on the most promising approaches for the major research effort, we always have to leave resources for less likely, indirect and seemingly far-out approaches. Some of these would be more holistic, ecological, evolutionary and social.

A whole-system strategy for confronting infectious disease has to be much broader than traditional medical and public health efforts. Health is determined in a much larger arena that includes land use, demography, pollution and waste disposal, wildlife and agriculture, poverty and inequality.

Clearly this is beyond the reach of existing ministries of health. A National Health Council which includes representation from other ministries such as agriculture, economy, fisheries, national parks, urban planning, and social services is needed that could look at the whole. Further, it has to support the kind of research that could integrate the diverse kinds of knowledge we need. And it is here that the scientific community has to discuss the kind of science our countries need – integrated with world science but also with its own intellectual agenda in keeping with Third World needs. ◆

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New diseases for old

What often pass off as new diseases are very often the result of the natural adaptations of micro-organisms to the environments that we create for them, wittingly or unwittingly, but often to our detriment.

Colm O'Mahony

Increased world travel is among the factors that have contributed to the dissemination of HIV.

HARDLY a year goes past without some new scare over some newly emerging highly virulent virus or bacterium that seems set to cause mayhem and havoc yet again amongst the population. Some of the concern raised in relation to these new diseases is generated or at least encouraged by sensationalist journalism. A recent example of that would be the widespread scares in the UK over the new flesh-eating bug. This particular organism (*Streptococcus pyogenes*) has long been recognised as causing a necrotising fasciitis (severe infection of tissues underneath the skin). However, once a couple of clusters were reported sensationally, it became news and multiple outbreaks were being described. The condition still occurs with the same frequency, but it is interesting to note that the newspapers have lost interest in it, and it's no longer reported. Other diseases then, are genuinely new. For example, the new strain of BSE capable of infecting humans. HIV could also be considered in this category, although there is convincing evidence that it has been around for at least 20 years before it became so widespread.

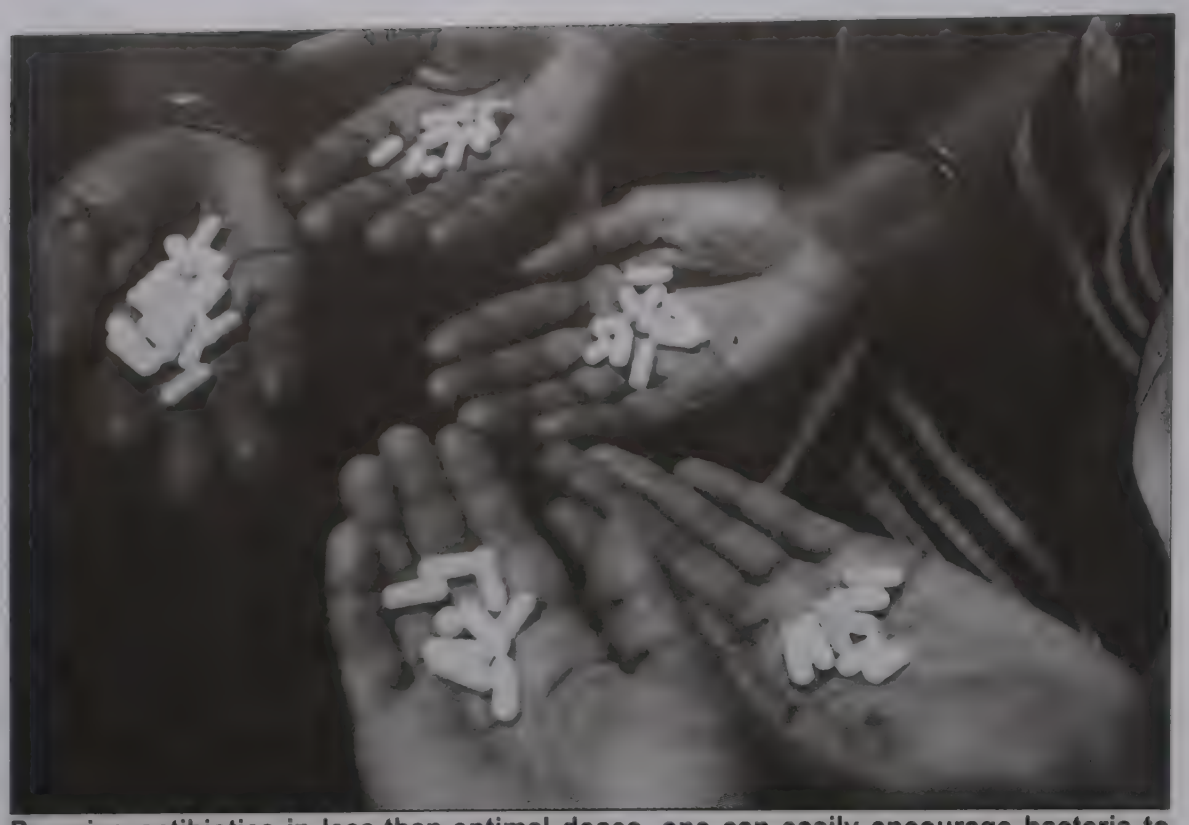
Mutations

It is well known that organisms like bacteria, viruses and parasites do mutate and change as they go through life cycles. Many of these mutations and changes are actually harmful to the organism and they die or fail to compete. On rare occasions, however, conditions may prevail that allow a particular variant to have an advantage over the non-mutant strains and therefore they can thrive, and actually predominate. This phenomenon is called selection pressure. It can be caused by the actual physical environment the organism is in, e.g., heat or cold, but more often it is due to chemicals in the environment, either antivirals or antibiotics, or anti-parasitic agents. Obviously, in the presence of these agents, only bacteria that can mutate and overcome them actually grow and thrive. One can see that by using antibiotics in less-than-optimal doses, for example, one can easily encourage bacteria to mutate to overcome the antibiotic and gradually replace all the infecting organisms with ones that are now resistant to that particular antibiotic.

Under other circumstances, chance mutations in bacteria viruses can allow them to adopt to new hosts in which they previously would not have survived. This is probably likely to be what happened with HIV. It is now established that there is a Simian (monkey) form of HIV, which can actually cause Simian AIDS. Transmission of this virus to humans would readily have occurred from monkey bites, etc. In fact, a similar situation is well known to exist with a virus called Marburg virus which has been transmitted from monkeys to humans and caused fatalities in the past through monkey bites. Luckily, however, this Marburg virus is not transmitted onwards from human to human and, therefore, an epidemic similar to HIV could not occur. Mutations that allowed HIV to grow in the human body obviously permitted the HIV to be transmitted through close contact in the ways that have been adequately described. Its dissemination was also further spread by other factors prevailing in this century, i.e., increased world travel, the use of human products like blood transfusions, and cryoprecipitate for haemophiliacs, etc.

Coincidences

Other viruses have also managed to jump on the bandwagon of coincidence generated by advances in medicine. Perhaps an example of this would be numerous outbreaks of Hepatitis C that have occurred after simple injections of immunoglobulin to prevent rhesus antibody formation in rhesus-negative women who had just delivered a baby. An unfortunate outbreak has been described in detail which occurred in Dublin in the 1970s, where several hundred women are now suffering from chronic Hepatitis B liver disease after having been



By using antibiotics in less-than-optimal doses, one can easily encourage bacteria to mutate to overcome the antibiotic and gradually replace the infecting organisms with ones that are now resistant to that particular antibiotic.

injected with anti-rhesus that contained significant amounts of Hepatitis C virus.

A similar situation occurred with the development of growth hormone from ground-up pituitary glands, that was used for treatment of children who had a deficiency of growth hormone. Again, unknown to the medical profession, a virus called the Jakob-Creutzfeld virus does grow in the pituitary gland and was not inactivated by the purification process. Therefore, some of the growth hormone was obviously contaminated with live JC virus and this form of dementia has now developed in many of the recipients.

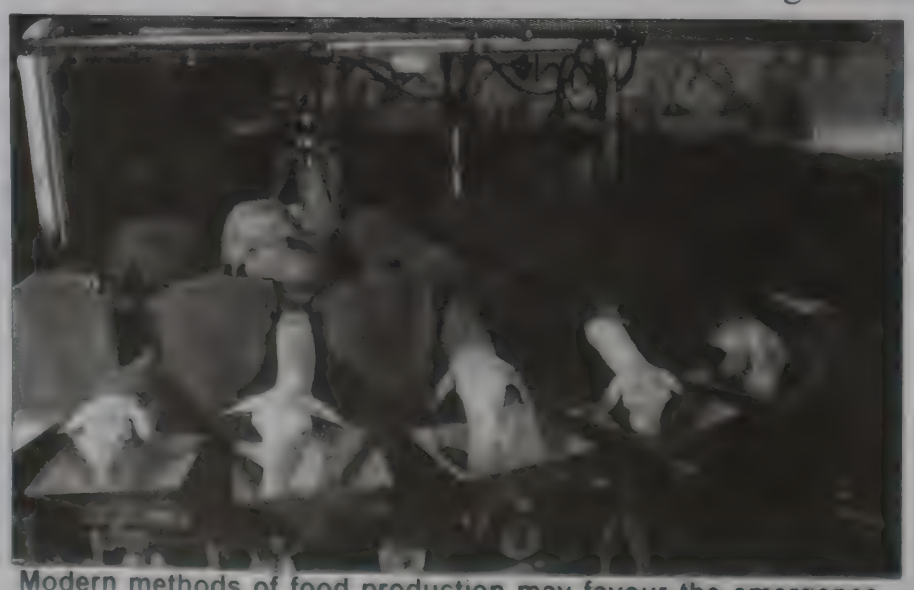
So, although we appear to see new diseases emerging, it is more often unfortunate coincidences that happen to suit opportunistic viruses. However, it could be suggested that modern lifestyle and methods of food production favour the emergence of new diseases and their spread.

An example could possibly be the new variant of BSE. The practice of feeding ground-up animal tissue to animals might now be considered a risky form of new food generation. The problem realistically is that many carcasses are ground and mixed to produce animal feed and therefore one infected animal can potentially pass on the infection to a multitude of other animals through the food. In comparison, where one animal might kill another and eat it, there is only one-to-one transmission, not multiple and widespread contamination.

There is also the fact that the population is living longer. All of us have a host of bacteria and viruses within our bodies, that one could say are living in tolerance with each other if not quite in harmony. Almost all of us get infected with chickenpox at an early age and this virus lives in our nerve cells forever. This can, of course, manifest itself as shingles in later life, if the immune systems wanes somewhat or during some period of stress or other disease that weakens the immune system. Herpes viruses, also live in a similar fashion, often causing chronic or recurrent orofacial or even genital herpes infections. Other less obvious viruses include Epstein-Barr virus. This is the virus that causes glandular fever syndrome. Of a somewhat higher profile, the cytomegalovirus (CMV) also lives within our body systems and has become a deadly threat in the emerging AIDS epidemic. Again, many of our bodies contain cytomegalovirus, but it's only when the immune system becomes severely suppressed that it emerges, causing widespread disease, but particularly causing a cytomegalovirus retinitis, which can and usually does lead to blindness.

The phenomenon of AIDS has unmasked many of these latent infections and they are not all viruses. For example, the parasitic infection toxoplasma, which is contracted by eating undercooked meat, is prevalent throughout Europe. This infection causes small cysts to develop within our body, particularly within the brain, and these again cause no problem unless there is severe immuno suppression which allows them to re-emerge. This again, is a major cause of morbidity and mortality in AIDS.

In summary, new diseases are indeed a true rarity and most of the apparent new conditions are more a natural adaptation of these micro-organisms to the environments that we create for them – either knowingly or unknowingly, but often inevitably to our detriment. ◆



Modern methods of food production may favour the emergence and spread of new diseases. Through contaminated animal feed, for example, one infected animal can potentially pass on the infection to a multitude of other animals.

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Human activities give rise to new diseases

By pushing every conceivable ecological boundary, humans are being exposed to 'new' diseases that have never before affected them.

David Suzuki

SARS, BSE and West Nile aren't just making headlines, they're making history. These diseases are truly products of our age – an age of global transport, industrialised agriculture and global warming. And they represent the tip of the iceberg in terms of emerging diseases.

Humans today are pushing every conceivable ecological boundary. We are displacing animal habitats, feeding meat products to herbivores, dining on exotic predators and doing it all while rushing madly about the planet in cars, boats and jet airplanes. We are everywhere and meddling in everything. As a result, we are being exposed to 'new' diseases that have never before infected humans.

Working to end the bushmeat trade in Africa and Asia is among the steps we must take if we want a healthier future.

Look at SARS. It now appears this latest disease epidemic may have originated in civet cats – a small, wild, nocturnal mammal that happens to be considered a delicacy in southern China. Humans may have become infected when these animals were slaughtered for food.

That sounds disconcertingly familiar to another global disease epidemic that has now killed nearly 20 million people worldwide – AIDS. HIV, the virus believed to cause AIDS, is thought to have been spread to humans from chimpanzees through the bushmeat trade. AIDS has taken a tremendous toll in Africa. In the next 17 years, some 55 million Africans are expected to die from the disease.

And there's more. Earlier this spring, a Dutch veterinarian became the first human to succumb to the Highly Pathogenic Avian Influenza that has been ravaging poultry farms in the Netherlands. About 100 other people also contracted the disease, which forced authorities there to slaughter more than 18 million chickens. The disease has also spread to pigs, which are ideal virus incubators and can act as intermediaries for a virus to spread from other animals to humans.

Four years ago that happened when Malaysian pig farmers hacked into forests to make room for their farms. Fruit bats that used to live in the forests began to roost in barns and building rafters. Their droppings, which carried a virus called Nipah, contaminated the pigs' feed. Although the virus appears to be harmless to bats, it causes a brutal cough and often death in pigs. From the infected pigs, the virus soon spread to farm workers, who developed similar symptoms. More than 100 people died and authorities had to slaughter more than a million pigs.

Closer to home, West Nile virus, which is spread by mosquitoes, killed 284 people in the United States last year and infected thousands more. West Nile only appeared in the US in 1999, and has since spread to most states and Canadian provinces. Some experts say that global warming may have been a factor in the spread of West Nile, as recent droughts have encouraged the proliferation of the type of disease-carrying mosquito that prefers shallow, organically rich pools of water.

Hantavirus, Ebola and Hendra are just a few other new diseases to recently emerge in humans. In fact, in the past 30 years, more than 35 new infectious diseases have been diagnosed. Deaths from infectious disease in the US are now double what they were in 1980. And three-quarters of all these emerging diseases have jumped from animals to humans.

Experts say that we are entering a new age of infectious disease and it's largely due to human activities. When we push deep into forests and jungles, we expose ourselves to new diseases. When we practise intensive livestock farming and feed herbivores to herbivores, we create ideal conditions for the spread of disease. As we change the climate, we create new vectors for disease to spread. The growth of international trade and travel further increases the capacity for diseases to flourish.

Some of these factors we cannot change. But some we can. We can work to end the bushmeat trade in Africa and Asia. We can curtail the continued destruction of our forests. We can enforce better livestock practices. We can reduce the fossil fuel emissions that are causing global warming. Indeed, these are steps we must take if we want a healthier future. ◆

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Emerging diseases and the threat of climate change

Human practices, widening social inequities and changes in ecological systems and climate are compounding and conspiring to unleash a barrage of emerging diseases. While improved surveillance and response capability is a necessary first step in tackling the problem, the key lies in preventing such outbreaks by nourishing the biological diversity that buffers against pathogen spread by cutting far fewer trees, restoring lost wetlands, diversifying farming, and burning much less coal, oil and natural gas, all of which release globe-warming gases. As the climate becomes more unstable, its role in disease creation increases.

Paul R Epstein, Eric Chivian and Kathleen Frith

Beijing at the height of the SARS outbreak earlier this year. Although public attention was focused on this explosive pandemic, more than 30 such diseases new to medicine have emerged since 1976.

IN April 2003, severe acute respiratory syndrome (SARS) appeared suddenly, sending shockwaves throughout public health systems and economies worldwide. By July 2003, 8,439 cases had been reported worldwide, with 812 deaths; the economic impacts were estimated to be $50-$100 billion (US) (Newcomb 2003). Although public attention was focused on this explosive pandemic, more than 30 such diseases new to medicine have emerged since 1976 [World Health Organisation (WHO) 1996].

Historically, waves of infections have often accompanied periods of social and environmental transition (Epstein 1992). Such upsurges include influenza in the aftermath of World War I and the plague during the Middle Ages. Tuberculosis, smallpox, and cholera appeared in concert among the teeming urban centres of Charles Dickens's 19th-century England.

In the past three decades, previously unknown diseases have surfaced at a pace without precedent in the annals of medicine. Indeed, such a renegotiation of evolutionary agreements between microbes and humans and other species may not have occurred since hunters and gatherers became herders – when domestication of animals triggered such a 'spill-over' of animal micro-organisms (Daszak et al. 2000; McMichael 2001).

Today, human practices, widening social inequities, and changes in ecologic systems and climate are compounding and conspiring to unleash a barrage of emerging diseases that afflict humans, livestock, wildlife, marine organisms, and the very habitat we depend upon. As the climate becomes more unstable, its role increases (Epstein et al. 1998). Having underestimated the rate at which climate would change (Houghton et al. 2001), we are only beginning to understand the responses of biological systems to warming (Walther et al. 2002) and the accompanying intensification of weather extremes (World Meteorological Organisation 2003).

The cast of new diseases includes HIV/AIDS, Lyme disease, *Legionella* infection, Ebola, Nipah virus, hantavirus pulmonary syndrome, toxic *Escherichia coli* infection, a new strain of cholera, and infection by a host of antibiotic-resistant organisms [Centers for Disease Control and Prevention (CDC) 1994; Institute of Medicine 1992]. Old diseases such as malaria, cholera, tuberculosis, rabies, and dengue fever are resurging, while others, such as West Nile virus (WNV), have undergone redistribution. SARS, like influenza, probably originated from the genetic reshuffling of animal viruses (Marra et al. 2003) and has now found a reservoir

in several species.

Is Nature having her way with us, we might ask, and could the results benefit other species? Unfortunately, the same set of global changes and genetic exchanges are stalking flora and fauna, and diseases themselves now threaten conservation efforts, including those in biological 'hot spots' (Myers 2002; Pimm et al. 2001).

Many micro-organisms are now jumping from species to species in several directions. For example, in 1998, bats bearing Nipah virus swept onto Malaysian pig farms after fleeing forest fires fuelled by intense drought associated with the largest El Niño event of the century (Epstein 1999; Institute on Climate and Planets 2003). As a result of this event, Nipah virus killed more than 100 people and crippled the swine industry (Johnson 2003). In early 2003, Ebola jumped back to primates and killed 600-800 gorillas in the Congo Republic, representing two-thirds of those remaining in the Lossi sanctuary (Morse and Colier 2003).

WNV is playing a particularly sinister role in nature. Following its explosive debut in New York City during the prolonged spring drought and heatwave of 1999 (Epstein and Defilippo 2001), WNV abated and incubated. Then, during the hot, dry summer of 2002, it spread across the nation and was detected in 44 states, Washington, DC, and five Canadian provinces. In 2002, WNV encephalitis afflicted 4,161 people and claimed 284 lives in the largest outbreak of mosquito-borne encephalitis recorded in the Western Hemisphere (CDC 2003). WNV also performed a dazzling array of new tricks, with infection occurring via blood transfusions, organ transplants, pregnancy, and probably breast milk.

Of greatest concern, however, WNV has spread to 230 species of animals, including 138 species of birds. WNV is spreading in the Caribbean and Central America, and is a leading suspect in the recent 10-fold drop of migratory song birds in Costa Rica (Causey D. Personal communication). Raptors have died from WNV, though population-level impacts are unknown. Rodents are consumed by birds of prey, and if unchecked, their legions can become prolific consumers of stored and growing grains and purveyors of pests and pathogens.

A cholera patient requiring intravenous rehydration. Old diseases such as cholera are resurging even as a barrage of new diseases is being unleashed.

Livestock and crop diseases

Diseases of livestock and crops have been particularly costly. The appearance of bovine spongiform encephalopathy ('mad cow') disease in the United Kingdom in the 1990s and new variant Creutzfeldt-Jakob disease in humans had major health, political, and economic impacts (Newcomb 2003). When followed by foot-and-mouth disease and large-scale flooding in 2001, the blow to the British economy ($30 billion) and psyche was palpable.

Crops face growing threats from extremes of weather and from pests, pathogens, and weeds (Rosenzweig et al. 2001). Cassava mosaic virus, one of the family of geminiviruses carried by white flies (Anderson and Morales 1993), has caused enormous losses of cassava (manioc, yucca, or tapioca) in sub-Saharan Africa, where it is a staple in the diet of millions.

Presently, 35-42% of growing and stored crops are lost to pests, pathogens, and weeds annually, amounting to losses of $244 billion worldwide annually (Pimental 1997). Increased climate variability could substantially alter future food security and global nutrition (Rosenzweig and Hillel 1998).

Habitats under threat

Habitat is also being subjected to the dual threats of climate change and emerging infectious diseases. In Alaska, spruce bark beetles have denuded four million acres of conifers on the Kenai Peninsula, as warming allows the beetles time for an extra generation each year (Kerlin 2002). Dead stands are then vulnerable to fire. In California, several species of trees are infected with *Phytophthora*, a fungus related to the one responsible for the Irish potato famine (Davidson et al. 2003). Extreme weather weakens the hosts and emboldens the agents.

Oaks in New Orleans, Louisiana, are bristling with termites (CNN 1997), as killing frosts became less frequent in the 1990s. New England hemlock trees are under assault from the woolly adelgid, an aphid-like insect that has migrated northward with warmer winters (Foster D. Personal communication).

In the coastal zone – the intersection of land, sea, and air – emerging diseases and algal toxins are affecting invertebrates, shellfish, finfish, shorebirds, and marine mammals (Harvell et al. 1999; Health, Ecological and Economic Dimensions of Global Change 1998). Of greatest con-

cern are diseases of seagrasses and coral; these ancient habitats are nurseries for mobile marine species and birds, and they protect shorelines from saline intrusion, breaking waves, and storms. Corals are already endangered, as high sea surface temperatures have caused widespread bleaching – the most dramatic biological sign of global warming. Excessive run-off of nutrients causes eutrophication (Townsend et al. 2003), and opportunistic fungal and bacterial pathogens are taking advantage of stressed coral reefs (Cervino et al. 2001), threatening the integrity and longevity of coral reefs worldwide.

The appearance of 'mad cow' disease in the UK in the 1990s and new variant Creutzfeldt-Jakob disease in humans had major health, political and economic impacts.

Declines in coral reefs threaten the marine food web and will affect such reef dwellers as cone snails, which produce numerous bioactive peptides (Chivian 2002; West et al. 2002), including a non-addictive, highly potent, opiate-like conotoxin.

Thus, emerging diseases have themselves become new drivers of global environmental change. Emerging diseases can a) cause extinction of endangered species; b) alter the ratios of predators, prey, competitors, and recyclers necessary for healthy, well-functioning ecosystems; and c) alter habitat already threatened by fragmentation and global climate change.

Resource conservation

This story of Earth's ills is not a cheery one, but systems are resilient, and unstable systems can be restabilised. Unearthing root causes raises the urgency of conserving natural systems, and deciphering the pattern of consequences can guide us toward local and global solutions.

The first step is improved disease surveillance and response capability worldwide – for the enemies we know and the surprises yet to come. Greater collaboration among wildlife, insect, human health, and climate specialists can help generate early warning systems and environmentally friendly interventions.

The primary goal in public health is prevention. Clean and abundant water supplies are fundamental, but they depend on healthy forests, coastal and riparian wetlands, and a stable climate (McCally 2002; McMichael 2002). Prevention thus means nourishing the biological diversity that buffers against pathogen spread (Chivian 2001; Daily 1997; Epstein et al. 1997) by cutting far fewer trees, restoring lost wetlands, diversifying farming, and burning much less coal, oil, and natural gas, all of which release globe-warming gases.

Emerging diseases affect our health, and they also threaten trade, travel, tourism, and livelihood. The insurance sector is particularly distressed by the risks projected from weather extremes and emerging diseases.

Simultaneously solving environmental, energy, and economic problems will take significant financial incentives and strong new market signals. The good news is that a large investment in efficiency and renewable energy, ecologic restoration and infrastructure retrofits, 'green buildings', 'smart growth', and coherent transport systems can become the engine of growth for the 21st century. Such an investment in conserving Earth's resources and generating far fewer wastes would constitute a welcome premium for insuring a cleaner, healthier, and more equitable future. ◆

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The above article appeared originally in Environmental Health Perspectives *(Vol. 111, No. 10, August 2003).*

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SARS virus genetically engineered?

One source of new diseases, both real and potential, is genetic engineering. *Dr. Mae-Wan Ho* raises questions whether genetic engineering could have contributed to creating the SARS virus.

The SARS epidemic

THE SARS epidemic started in the weeks that the 'allied forces' were waging war on Iraq to hunt down Saddam Hussein and his still-elusive 'weapons of mass destruction'. SARS – Severe Acute Respiratory Syndrome – is a completely new infectious disease spread by human contact. By 20 June 2003, World Health Organisation figures registered 8,461 cases in 31 countries worldwide, and 804 deaths. The overall death rate is nearly 10% and could be 20% or higher. Although there are signs that the disease is under control, there are also fears that it may return.

Chinese health officials testing for SARS. Could the SARS virus have come from genetic engineering?

Mystery of the SARS virus

The World Health Organisation, which played the key role in coordinating the research of a dozen laboratories, formally announced on 16 April that a new pathogen, a member of the coronavirus family never before seen in humans, is the cause of SARS, though lingering doubt has remained. The virus cannot be identified in all patients diagnosed with SARS, and it can only be isolated from cultured green monkey kidney cells.

Known coronaviruses are placed in three groups based on similarities in their genomes. Group 1 contains the porcine epidemic diarrhoea virus (PEDV), porcine transmissible gastroenteritis virus (TGEV), canine coronavirus (CCV), feline infectious peritonitis virus (FIPV) and human coronavirus 229E (HuCV229E); Group 2 contains the avian infectious bronchitis virus (AIBV) and turkey coronavirus; while Group 3 contains the murine hepatitis virus (MHV), bovine coronavirus (BCV), human coronavirus (HuOC43) and others.

The molecular phylogenies published 10 April in the *New England Journal of Medicine*, based on small fragments of the polymerase gene, have placed the SARS virus in a separate group somewhere between groups 2 and 3. More detailed analysis, subsequently published in the *New England Journal of Medicine*, *Science* and the *Lancet*, indicates that the new virus is not closely related to *any* known virus at all, human, mouse, bovine, cat, pig, bird, notwithstanding. It is neither a mutant that switched host, nor a recombinant from existing coronaviruses. It is more complicated than that.

SARS virus – a product of genetic engineering?

Two scientists who have genetic engineered coronaviruses in their laboratories, Holmes and Enjuanes, suggested in a commentary in the journal *Science* that the SARS virus probably 'evolved separately from an ancestor of the known coronavirus, and infected an unidentified animal, bird, or reptile host for a very long time before infecting humans and starting the SARS epidemic'. (p.1377)

Following soon afterwards, there was a claim that the SARS virus came from the masked civet cat in south China. But that claim could not be substantiated. An alternative hypothesis entertained in the mainstream journals was that the virus came from outerspace.

There are very unusual features to the SARS virus. Its sequence most closely matches that of mouse hepatitis virus (MHV) and bovine coronavirus (BCV), both in Group 3. The match is quite good in the middle third of the genome that's nearly 30000nt long, and not good at all for the first third or last third of the sequence. But, antibodies to the SARS virus cross react with FIPV, HuCV229E and TGEV, all in Group

1. And the SARS virus can grow in Vero green monkey kidney cells, which no other coronavirus can, with the exception of PEDV, another virus in Group 1.

Could the SARS virus have come from genetic engineering? This is a question that Ho and Cummins have put to the scientific community. So far, we have not had a proper reply.

Holmes and Enjuanes stated in their commentary, 'SARS-CoV is also unlikely to have been created from known coronaviruses by genetic engineering, because at present it would be impossible to modify 50% of a coronavirus genome without abrogating viral infectivity.' (p.1377)

This is a quite feeble response. The whole point to genetic engineering is that it greatly increases the scope of recombination, and provides selective tools to find the most unlikely recombinants that are still infectious.

Coronaviruses have been subjected to increasing genetic manipulation since the latter half of the 1990s, when P S Masters in Wadworth Center, New York State Department of Health and New York State University at Albany, used RNA recombination to introduce extensive changes into the genome of mouse hepatitis virus (MHV). In a review published in 1999, he wrote, 'Targeted recombination could be used to create extensive substitutions to the coronavirus genome, generating recombinants that could not be made otherwise between two viruses separated by a species barrier.' (p.254)

'Defective interfering RNAs' – sequences of the viral genome with large deletions as well as mutations and substitutions or insertions – were used as donor sequences to introduce major substitutions and point mutations into the genome of the viruses by RNA recombination.

In the course of such work, researchers have even isolated a recombinant of coronavirus with the green fluorescent protein (GFP) gene, presumably from cells in which coronaviruses have been cultured, which has become inserted into the spike protein gene. The GFP gene, originally from a jelly-fish, is extensively used in genetic engineering as a marker gene because it makes the cells that have taken up the foreign genes give off a green glow under UV light. *The GFP-coronavirus recombinant could only have come about as an unintended by-product of genetic engineering.*

In the same review, P S Masters showed that both point mutations and large substitutions can readily be transferred to the last third of the genome of MHV and other coronaviruses. He further indicated that similar strategies could be used to mutate and substitute the first third of the genome, though not for the middle third. 'A comprehensive genetic study of the highly complex gene for the RNA polymerase and all of its associated activities [encoded by the middle third of the genome] will likely await either the construction of an infectious full-length clone or the development of an innovative scheme for mutant selection.' (p.259)

Is that why the middle third of the SARS virus genome has retained good homology to MHV and BCV, which were the first coronaviruses to be engineered in this manner, while the other parts are much more different?

Another feature of the SARS virus is that the spike protein, which determines host range, is unlike the spike protein of any known coronavirus. Instead, it appears to have homologies to segments of the human chromosome 7, according to sequence analysis performed by Howard Urnovitz. Urnovitz believes that the spike protein of the SARS virus is the result of genetic rearrangements provoked by environmental genotoxic agents, much like those he and his colleagues have detected in Gulf War I veterans suffering from Gulf War Syndrome.

But how did the virus get to south China? A possible answer was provided by Urnovitz: Migratory birds that frequent gene-swapping hot spots like south-east China could have carried the SARS virus there.

Urnovitz himself doesn't think the SARS virus is the real cause of SARS. Instead, it is the piece of reshuffled human chromosome 7 that others are referring to as the spike protein gene of the SARS virus. That alone is sufficient to trigger serious autoimmune responses in people.

Hence, to create vaccines against that 'spike' protein is also tantamount to vaccinating people against their own genes (see 'Dynamic genomics and environmental health', www.i-sis.org.uk). ◆

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The corporate construction of disease

The pharmaceutical industry and disease-mongering

New diseases emerge from a variety of sources, including, as the following article reminds us, from the drug industry. Although such corporate-manufactured diseases do not generally develop into the kind of life-threatening epidemics which are the concern of our cover story, we believe that the inclusion of this article on the mechanics of corporate-backed disease-mongering is warranted by the threat it poses to the public health agenda.

Ray Moynihan, Iona Heath and David Henry

THERE'S a lot of money to be made from telling healthy people they're sick. Some forms of medicalising ordinary life may now be better described as disease mongering: widening the boundaries of treatable illness in order to expand markets for those who sell and deliver treatments.[1 2] Pharmaceutical companies are actively involved in sponsoring the definition of diseases and promoting them to both prescribers and consumers. The social construction of illness is being replaced by the corporate construction of disease.

Whereas some aspects of medicalisation are the subject of ongoing debate, the mechanics of corporate-backed disease mongering, and its impact on public consciousness, medical practice, human health, and national budgets, have attracted limited critical scrutiny.

Within many disease categories informal alliances have emerged, comprising drug company staff, doctors, and consumer groups. Ostensibly engaged in raising public awareness about underdiagnosed and undertreated problems, these alliances tend to promote a view of their particular condition as widespread, serious, and treatable. Because these 'disease awareness' campaigns are commonly linked to companies' marketing strategies, they operate to expand markets for new pharmaceutical products. Alternative approaches emphasising the self-limiting or relatively benign natural history of a problem, or the importance of personal coping strategies – are played down or ignored. As the late medical writer Lynn Payer observed, disease mongers 'gnaw away at our self-confidence'.[2]

Although some sponsored professionals or consumers may act independently and all concerned may have honourable motives, in many cases the formula is the same: groups and/or campaigns are orchestrated, funded, and facilitated by corporate interests, often via their public relations and marketing infrastructure.

A key strategy of the alliances is to target the news media with stories designed to create fears about the condition or disease and draw attention to the latest treatment. Company-sponsored advisory boards supply the 'independent experts' for these stories, consumer groups provide the 'victims', and public relations companies provide media outlets with the positive spin about the latest 'breakthrough' medications.

Inappropriate medicalisation carries the dangers of unnecessary labelling, poor treatment decisions, iatrogenic illness, and economic waste, as well as the opportunity costs that result when resources are diverted away from treating or preventing more serious disease. At a deeper level it may help to feed unhealthy obsessions with health,[3] obscure or mystify sociological or political explanations for health problems,[4] and focus undue attention on pharmacological, individualised, or privatised solutions.[3] More tangibly and immediately, the costs of new drugs targeted at essentially healthy people are threatening the viability of publicly funded universal health insurance systems.[5]

Recent discussions about medicalisation[6] have emphasised the limitations of earlier critiques[1] of the disabling impact of a powerful medical establishment. Contemporary writers argue that the lay populace has become more active, better informed about risks and benefits, less trusting of medical authority, and less passively accepting of the expansion of medical jurisdiction into their bodies and lives. Although these views may herald a more mature debate about medicalisation, the erosion of trust in medical opinion reinforces the need for wide public scrutiny of industry's role in these processes.

In this paper we do not aim for a comprehensive classification or definitive description of disease mongering, but rather we draw attention to an important but under-recognised phenomenon. We identify examples, taken from the Australian context but familiar internationally, which loosely represent five examples of disease mongering: the ordinary processes or

ailments of life classified as medical problems; mild symptoms portrayed as portents of a serious disease; personal or social problems seen as medical ones; risks conceptualised as diseases; and disease prevalence estimates framed to maximise the size of a medical problem. These groups are not mutually exclusive and some examples overlap.

Ordinary processes or ailments as medical problems: baldness

The medicalisation of baldness shows clearly the transformation of the ordinary processes of life into medical phenomena. Around the time that Merck's hair-growth drug finasteride (Propecia) was first approved in Australia, leading newspapers featured new information about the emotional trauma associated with hair loss. The global public relations firm Edelman orchestrated some of the coverage but largely left its fingerprints off the resulting stories.

An article on page 4 in the *Australian* newspaper featured a new 'study' suggesting that a third of all men experienced some degree of hair loss, along with comments by concerned experts and news that an International Hair Study Institute had been established.[7] It suggested that losing hair could lead to panic and other emotional difficulties, and even have an impact on job prospects and mental well-being. The article did not reveal that the study and the institute were both funded by Merck and that the experts quoted had been supplied by Edelman, despite this information being available in Edelman's publicity materials in May 1998.

Although Merck is prevented from advertising finasteride direct to consumers in Australia, it has continued to promote hair loss as a medical problem, with waves of advertisements urging balding men to 'See Your Doctor'. The company argues that it does not describe baldness as an illness and that men have a legitimate right to be made aware of scientifically proved options to stop hair loss (statement from Merck spokesperson, 7 March 2002).

Mild symptoms as portents of serious disease: irritable bowel syndrome

Irritable bowel syndrome has long been considered a common functional disorder, and a 'diagnosis of exclusion' covering a range of symptom severity, yet it is currently experiencing something of a global 'makeover'. Without question many people with the condition are severely disabled by their symptoms, but the arrival of new drugs has seen manufacturers seek to change the way the world thinks about irritable bowel syndrome.

What for many people is a mild functional disorder – requiring little more than reassurance about its benign natural course – is currently being reframed as a serious disease attracting a label and a drug, with all the associated harms and costs.

Confidential plan to 'shape' medical opinion

A confidential draft document leaked from a medical communications company, In Vivo Communications, describes a three-year 'medical education programme' to create a new perception of irritable bowel syndrome as a 'credible, common and concrete disease'. The proposed 2001-3 education programme is part of the marketing strategy for GlaxoSmithKline's drug Lotronex (alosetron hydrochloride).

In Vivo is one of a handful of companies specialising in corporate-backed 'medical education', and the leaked plan provides a rare insight into the highly secretive world of drug promotion, with its new emphasis on 'shaping' medical and public opinion about the latest diseases.

According to the documents, the education programme's key aim is this: 'IBS [irritable bowel syndrome] must be established in the minds of doctors as a significant and discrete disease state.' Patients also 'need to be convinced that IBS is a common and recognised medical disorder'. The other main messages are about promoting the new 'clinically proven therapy' – Lotronex.

The first step is to set up an 'Advisory Board, comprising one KOL [key opinion leader] from each state of Australia'. Its chief role would be to provide advice to the corporate sponsors on current opinion in gastroenterology and on 'opportunities for shaping it'. Further work would include developing 'best practice guidelines' for diagnosing and managing irritable bowel syndrome and attending overseas meetings. Another strategy was to produce a newsletter in the pre-launch period to 'establish the market' and convince the 'specialist market' that the condition is a 'serious and credible disease'.

For general practitioners, In Vivo recommends a series of advertorials in leading medical magazines, featuring interviews with members of the company's advisory board, because 'The imprimatur of [board] members is invaluable in reassuring [general practitioners]... that the material they receive is clinically valid.'

Other groups to be targeted with promotional material include pharmacists, nurses, patients, and a medical foundation described as already having a 'close relationship' with In Vivo. A 'patient support programme' is also planned for 2002-3, so that GlaxoSmithKline will 'reap the loyalty dividend when the competitor drug kicks in'.

Medical education or marketing?

Although billed as a medical education plan, the document is clearly part of the Lotronex marketing strategy. One clause explicitly stipulates that all publications and manuscripts must be approved by the drug company's marketing, medical, and legal departments. The document also makes clear the media's role in changing public perceptions about irritable bowel syndrome, stating that 'PR [public relations] and media activities are crucial to a well-rounded campaign – particularly in the area of consumer awareness.'

Whatever the integrity or competence of the professionals or consumer advocates involved, and without seeking to minimise the importance of the disorder for some indi-

viduals, this plan shows that staff and organisations sponsored by a drug company are helping to shape medical and public opinion about the condition that company is targeting with its new product. Although GlaxoSmithKline has argued that its sponsorship of education can improve doctors' prescribing habits (personal communication, 7 March 2002), the conflict of interest is obvious and potentially dangerous. Self-evidently, the drug company's primary interest will be shaping opinion about irritable bowel syndrome in a way that will maximise sales of its medication.

In this case the proposed campaign was stopped because of the withdrawal of Lotronex from the market, after reports to the US Food and Drug Administration of serious and sometimes fatal adverse reactions.[8] In a recent letter to patients, the administration suggested that indiscriminate use of the drug could result in more fatal adverse events and that many patients in whom the condition was non-serious could experience more harm than good.[9]

Conversations with industry insiders and other published material from the drug-marketing industry confirm that the strategies proposed for promoting irritable bowel syndrome by In Vivo were in no way exceptional. A 'practical guide' published by Britain's *Pharmaceutical Marketing* magazine in 2001 explicitly emphasised that key objectives of the pre-launch period were to 'establish a need' for a new drug and 'create the desire' among prescribers.[10] The guide instructed drug marketers that they may need to 'initiate a review of the whole way in which a particular disease is managed'.

Personal or social problems as medical ones: social phobia

When Roche was promoting its antidepressant Aurorix (moclobemide) as a valuable treatment for social phobia in 1997, its public relations company issued a press release, picked up by some of the media, announcing that more than one million Australians had an underdiagnosed psychiatric disorder called social phobia.[11] The release described a 'soul-destroying condition' and quoted a clinical psychologist strongly endorsing the role of antidepressants in its treatment. At that time, government figures suggested the number of people with the disorder might be closer to 370,000.

In 1998, a newspaper article, 'Too shy for words' – this time not orchestrated by Roche – suggested that two million Australians were affected by the condition.[12] All the media stories seemed to be part of a wider push to change the common perception of shyness, from a personal difficulty to a psychiatric disorder.

An important aspect of Roche's marketing for moclobemide involved working with a patient group called the Obsessive Compulsive and Anxiety Disorders Foundation of Victoria and funding a large conference on social phobia. According to the foundation's chief at the time, 'Roche is putting a lot of money into promoting social phobia .... Roche funded the conference to help get social phobia known among [general practitioners] and other health professionals.... It was a vehicle to raise awareness with the media too.'[11] Roche's promotion of its antidepressant drug also included working with ostensibly independent medical specialists, one of whom was later described by a public relations agent as 'Moclobemide Man' (personal communication, 1998).

Pharmaceutical Marketing's practical guide singled out the promotion of social phobia as a positive example of drug marketers shaping medical and public opinion about a disease.[10] 'You may even need to reinforce the actual existence of a disease and/or the value of treating it. A classic example of this was the need to create recognition in Europe of social phobia as a distinct clinical entity and the potential of antidepressant agents such as moclobemide to treat it,' said the industry guide. It went on: 'Social phobia was recognised in the US and so transatlantic opinion leaders were mobilised to participate in advisory activities, meetings, publications etc. to help influence the overall belief in Europe.' The medicalisation of human distress seems to have no limits.[13]

A senior Roche official recently conceded that company promotion exaggerated the prevalence of social phobia in Australia. 'A lot of disease estimates are blown out of all proportion .... The marketing people always beat these things up,' said local managing director Mr Fred Nadjarian.

Risks conceptualised as diseases: osteoporosis

Like high blood pressure or raised cholesterol levels, the medicalisation of reduced bone mass – which occurs as people age – is an example of a risk factor being conceptualised as a disease.

Unlike medicalising baldness, conceiving osteoporosis as a disease is ethically complex. Slowing bone loss can reduce the risk of future fracture – just as lowering blood pressure can reduce a person's chance of a future stroke or heart attack – but for most healthy people, the risks of serious fractures are low and/or distant, and in absolute terms, long-term preventive drug treatment offers small reductions in risk. For example, in a placebo controlled trial in which alendronate was taken for four years by women who were free of fracture but had bone mineral density measurements 1.6 standard deviations below the mean for normal young adult white women, the incidence of radiographic vertebral fractures was 3.8% in the placebo group and 2.1% in the treatment group.[14] This equated to a 44% relative reduction in risk but an absolute risk reduction of only 1.7%.

Furthermore, the promotional focus on chemical solutions for the complex problem of preventing fractures takes attention away from a variety of modestly effective non-pharmacological strategies, such as dietary supplementation with calcium and vitamin D, smoking cessation, and weight-bearing exercise.[15]

Despite the ethical complexities,

osteoporosis remains a strong example of disease mongering because the corporate role in changing the way populations think about bone loss has been so extensive. Drug companies have sponsored meetings where the disease was being defined,[16] funded studies of therapies,[17] and developed extensive financial ties with leading researchers. They have funded patient groups, disease foundations, and advertising campaigns (on both drugs and disease) targeted at doctors[11] and have sponsored osteoporosis media awards offering lucrative prizes to journalists.

A controversial definition

Contrary to much of the corporate promotion, the definition of osteoporosis is still controversial. Diagnostic criteria set by the World Health Organisation, which set the bone density of young white women as 'normal' and judge the bones of older women against this standard, are contentious.[16] A key meeting of the WHO study group involved in defining the diagnosis of osteoporosis was funded in part by three pharmaceutical companies.[16]

The link between bone density and fracture risk is also the subject of scientific controversy, with reviewers pointing out that while bone mineral density is associated with fracture, it is not a sufficiently accurate predictor of an individual's risk of fracture to be used as a guide to therapy.[18] A recent evaluation by the University of British Columbia concluded that 'Research evidence does not support either whole population or selective ... bone mineral density testing of well women at or near menopause as a means to predict future fractures.'[16]

Good quality studies have shown that several drugs, including oestrogens, selective oestrogen receptor modulating agents, and bisphosphonates, reduce the risk of fractures.[15] However, although public promotion of those drugs often relies on presentations of relative reductions in fracture risk, the absolute reductions for healthy women are small when weighed against potential harms and costs.[19]

The marketing of fear

Osteoporosis Australia, a medical foundation, which has received funding from pharmaceutical companies, issued a press release in 2001 urging people to take a one-minute test for their risk of osteoporosis.[20]

According to the foundation, 'we call this disease a silent thief: if you're not vigilant, it can sneak up on you and snatch your quality of life and your long-term health.' An accompanying 10-point checklist suggests that merely being a menopausal woman was enough to justify a trip to the doctor to be tested for this disease. The construction of the widely used WHO diagnostic criteria is such that large numbers of healthy women at menopause will automatically be diagnosed as having this 'disease' because their bones are being compared with those of much younger women.

Against a background of controversy over disease definition, poor predictive value of bone density measurement, and heavily advertised expensive therapies offering marginal benefits to menopausal women, corporate-backed promotional activities are attempting to persuade millions of healthy women worldwide that they are sick.

Disease prevalence estimates framed to maximise the size of a medical problem: erectile dysfunction

Double-page advertisements told Australians recently that 39% of men who visit general practitioners have erection problems.[21] The advertisement featured an unhappy couple, who looked to be in their 30s or 40s, on opposite sides of a double bed, with the accompanying text: 'Erection problems: hard to talk about, easy to treat.' As with much disease mongering, the key strategy here was to make the condition seem as widespread as possible.

The 39% claim in the advertisement was referenced to an abstract of a survey finding. The full version of the published survey[22] revealed that the 39% figure was obtained by tallying all categories of difficulties, including men who reported having problems only 'occasionally', and the average age of those reporting complete erectile dysfunction was 71 years. Another recent Australian study, not cited in the advertisement, estimated that erection problems affected only 3% of men in their 40s, and 64% of men in their 70s.[23]

The advertisement's fine print cited a host organisation, Impotence Australia, and two other groups but did not mention that the advertisement was funded by the manufacturer of sildenafil (Viagra), Pfizer. Impotence Australia had at that time only recently been set up with a grant of $A200 000 (£74,000; $105,200; €119,400) from Pfizer. Its executive officer told the press, 'I could understand that people may have a feeling that this is a front for Pfizer.'[24]

Defending the public promotion of erection problems, a Pfizer spokesperson said, 'The best consumer is an educated consumer... Who better than the manufacturer to help this process?' (personal communication, 5 March 2002).

Discussion

These observations of disease mongering are selective and preliminary. They are not the result of systematic study, but rather a series of anecdotal case studies designed to provoke debate. We know little of the true extent of these industry-funded zones of influence, and even less of their impact. But we believe more information and analysis of the nature and functioning of these 'unholy alliances'[2] is warranted. The key concern with the examples here is the invisible and unregulated attempts to change public perceptions about health and illness to widen markets for new drugs.

Although mainstream media already play an important role investigating and reporting on contemporary promotional activities, more could be done to expose and reduce misleading 'wonder drug' stories, which help to facilitate so much disease mongering.

As a practical step, we suggest that health professionals, policy makers, journalists, and consumers move away from reliance on corporate-sponsored material about the nature or prevalence of disease. Genuinely independent sources of information about health problems could replace

those skewed towards making the maximum numbers of healthy people feel sick.

Just as researchers from the Cochrane Collaboration are generating systematic evaluations of the best evidence about therapies, a similar effort may be required in evaluating and/or producing unbiased information about illness – starting with those conditions most prone to disease mongering. Independent lay involvement is crucial to produce accurate, comprehensive, and accessible materials.

The public is entitled to know about the controversy surrounding disease definitions and about the self limiting and relatively benign natural course of many conditions. A publicly funded and independently run programme of 'de-medicalisation,' based on respect for human dignity, rather than shareholder value or professional hubris, is overdue. ◆

We dedicate this article to the late Lynn Payer, medical writer, who died in 2001. We thank David Newby for his help in conducting literature searches.

Competing interests: DH has received funding from American Home Products to conduct research into non-steroidal anti-inflammatory drugs. As a member of the Australian Pharmaceuticals Benefits Advisory Committee, he has twice been the subject of legal action by Pfizer.

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The above article first appeared under the title 'Selling sickness: the pharmaceutical industry and disease mongering' in BMJ *(Vol. 324, 13 April 2002, pp. 886-90) and is reproduced with permission from the BMJ Publishing Group.*

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Commentary: Medicalisation of risk factors

Peter C Gøtzsche

A MIDDLE-aged man with pneumonia may wonder why the attending doctor is inserting a finger into his rectum. This is a screening test – it has nothing to do with the patient's disease. The physician may find a localised prostate cancer, and the patient may subsequently undergo radical prostatectomy, although no evidence from randomised trials shows that this operation is effective. The patient with pneumonia cannot be sure that the prostatectomy will increase his chance of living longer, but his life will probably feel longer, because the operation renders most men impotent.[1] This disastrous consequence has received too little attention, but when properly informed, many men will decide not to have a screening test.[2]

The man's risk factor for prostate cancer was his age. Increased age leads to other unanticipated interventions. In some countries, women are invited for mammography in a letter in which the date and time of the appointment have already been fixed.

This puts pressure on these women, who must actively decline the invitation if they don't want to be screened. Sometimes, women are asked to give reasons for not attending appointments, as if it were a civic duty. In leaflets, women get simple messages – that cancer detected early can be cured, and early cancers can often be treated with breast conserving surgery.

The data tell another story: no reliable evidence shows that breast screening saves lives; breast screening leads to more surgery, including more mastectomies; and estimates show that more than a tenth of healthy women who attend a breast screening programme experience considerable psychological distress for many months. [3 4]

Senior scientists argue that this debate should not be taking place in public.[5] This misguided paternalism makes us wonder why health professionals are so eager to intervene in healthy people's lives and about those people's own perspectives on risks. In Denmark, the most common cause of death from cancer among women is no longer breast cancer but is now lung cancer, which is mainly self-inflicted.

Risk analysis

It seems that every person aims to balance the rewards of taking risks against perceived hazards.[6] This can probably explain why laws on wearing safety belts have not reduced deaths from road crashes. Such deaths now happen to those outside rather than inside the vehicle – probably because drivers who wear safety belts feel safer and drive faster or more carelessly than those who do not.[6]

Another important consideration is the reliability of studies of risk. Increased risks are often reported in case-control studies, which do not reliably identify moderate increases in risk. A much quoted and carefully done meta-analysis of case-control studies claimed to show a 30% increase in the risk of breast cancer after induced abortion,[7] but this was later refuted by a large cohort study.[8] Most epidemiologists interviewed by *Science* said they would not take seriously a single study reporting a new potential cause of cancer unless it increased the risk by at least a factor of three; some even noted that the lower limit of the confidence interval should exceed 3.[9] Nevertheless, lay people are influenced by increases in risk of 50-100%, and this leads to much public anxiety and many negative changes in lifestyle. Some people, for example, will follow unappealing diets or quit sports when told that their bone mineral density is low, even though these diets may not affect bone mineral density and inactivity increases the risk of fractures.

Mass intervention on a fragile basis may lead to mass harm. The main outcome of cancer screening trials – disease specific mortality – is unreliable and biased in favour of screening. [3 4 10] It therefore seems prudent to show an effect of a screening programme on total mortality in good randomised trials and to inform the public fully about the adverse effects before the programme is implemented.

The biggest risk for the population right now may be the uncritical adoption of screening tests for cancer – for example, for cervical, breast, prostate, colon, and lung cancer [1 3 10 11] – despite lack of evidence of an effect on total mortality. Precursors to cancer can be seen in most healthy people above middle age, and the potential for screening to cause harm and lead to a diagnosis of 'pseudodisease' is frightening. Whether risk factors should be turned into diseases also needs careful reflection for other screening tests – for example, detection of mild hypertension or mild hypercholesterolaemia.

Perhaps it is time to rethink what life is all about and remind ourselves that most people are willing to run substantial risks in their ordinary life to preserve their joy and autonomy. In *Out of Africa*, Karen Blixen wrote that the European wants to get insured against fate, whereas the African takes it as it comes. She also wrote: *'Frei lebt wer sterben kann'* [Those who can die live freely]. ◆

Competing interest: None declared.

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Preventable diseases claim 11 million children each year

Malnutrition and preventable diseases kill some 11 million children annually before they are five.

Katherine Stapp

NEARLY 11 million children do not live to see their fifth birthday each year due to a lethal combination of malnutrition and mostly preventable diseasès, according to a new article in the *Lancet* journal – a catastrophe that experts say is needless.

'Every single day – 365 days a year – an attack against children occurs that is 10 times greater than the death toll from the World Trade Centre,' said Jean-Pierre Habicht, a professor of epidemiology and nutritional sciences at the US-based Cornell University.

'We know how to prevent these deaths – we have the biological knowledge and tools to stop this public health travesty – but we're not yet doing it,' said Habicht, one of the child health researchers publishing a five-article 'call to action' in the *Lancet*.

Most of the deaths are concentrated in a handful of countries. According to the *Lancet*, just six countries account for half of worldwide deaths of children younger than five, and 42 countries for 90% of deaths.

India, Nigeria, China, Pakistan, the Democratic Republic of Congo and Ethiopia alone suffer 5.5 million child deaths a year.

Altogether, about 41% of child deaths occur in sub-Saharan Africa, and another 34% in South Asia.

Habicht noted that these children are mostly killed by a few diseases, such as measles, malaria, diarrhoea and pneumonia, which can be prevented or at least managed effectively. Nutrition plays a key role, with researchers reporting that malnourished children are up to 12 times more likely to die from these diseases than are well-nourished children.

'These are also the diseases that kill malnourished children, so that dealing with these diseases is a first step for well-fed children and a fall-back step for malnourished children. Preventing deaths from these diseases costs only pennies per year,' Habicht said.

Malaria remains a leading killer, with 500 million new infections every year and more than one million deaths annually, according to the Geneva-based World Health Organisation.

Children in sub-Saharan Africa, where 90% of all malaria deaths occur, are by far the worst off. In fact, malaria accounts for one in five of all childhood deaths in Africa.

While drugs are available to treat the disease, the malaria parasite has evolved resistance to them in many areas. In the absence of a vaccine, health authorities have focused on eliminating the mosquitoes that transmit the malaria parasite to humans through the use of bed nets, extensive spraying of pesticides like DDT, and other methods.

Bernard Muthaka, coordinator of the Nairobi-based Population Service International Programmes, which handles malaria and diarrhoea programmes, says the use of pesticide-treated nets can slash hospital admissions for malaria by up to 40%. They can also lower the death rate by 25%.

Dr Eustace Karo, a paediatrician based in Nairobi, agreed that prevention should focus on better nutrition and reducing human/mosquito contact. 'Investing in newer research of vaccines is not worthwhile,' he argued. 'We have to stress the use of treated bed nets. It is a cheap, available and effective treatment of malaria.'

Angelo D'agostino, founder of the Nyumbani Children's Home in Nairobi, which provides shelter to abandoned HIV-positive children, supports a multi-pronged approach. 'In the case of diarrhoea, good hygiene and clean water are necessary. However, vaccines remain important,' D'agostino said. 'Just as vaccines wiped out smallpox and yellow fever, we need others to control the childhood deaths.'

A nurse in India checks on a child's nutritional status by measuring the circumference of the arm. 'While there have been striking improvements with respect to child survival (in India), this has yet to be followed up to the point of achieving optimal child health and nutrition.'

Lancet researchers found that AIDS accounts for more than 10% of child deaths in just three of the 42 hardest-hit countries. However, in

some smaller countries, such as Botswana and Zimbabwe, AIDS causes more than half of child deaths.

While Africa struggles under the twin burdens of malaria and AIDS, India stands alone in terms of sheer numbers, with a staggering 2.4 million children under five dying in 2000. This is three times the death toll of the second-ranked country, Nigeria.

'India spends less than 1% (of Gross Domestic Product) on health, which is grossly inadequate to meet the basic health needs of half of the country's population of one billion people who live below the poverty line,' said Mira Shiva, of the Voluntary Health Association of India.

A young AIDS patient in Botswana. AIDS causes more than half of child deaths in Botswana.

According to Dr C Gopalan, president of the Federation of Asian Nutrition Societies, more than half of children in the South Asian region as a whole are stunted.

'While there have been striking improvements with respect to child survival, this has yet to be followed up to the point of achieving optimal child health and nutrition,' said Gopalan, who heads the independent Nutrition Foundation of India.

According to the well-known nutritionist, modern technology makes it possible to 'successfully apply death control strategies even in the continuing context of poverty and under-nutrition'.

However, he notes that as a result of policies where the chief objective has been 'child survival' rather than child health, there has been a growing pool of 'substandard survivors'.

Gopalan also cited the generally poor health of pregnant women in South Asia. 'Nearly 80% of pregnant women in this region are anaemic and, even more importantly, nearly one-third of infants born to them are of low birth weight. The diets of pregnant women in poor communities in South Asia are as poor, if not even poorer, than those of non-pregnant women,' he said.

Some of the diseases killing children – such as measles and polio – can be prevented with a simple vaccine.

Japan is a major contributor to eradicating polio from the world, spending $2.5 billion over the past decade on an inoculation campaign to stem the highly infectious virus.

Polio can strike at any age, but it mainly affects children under three – more than half of all cases – according to Polio Eradication, an inoculation project launched in 1988 during the World Health Assembly.

Another virus for which a vaccine exists – measles – kills nearly one million children a year, half in Africa alone. This fact makes measles the single leading cause of vaccine-preventable death among children in Africa – more than AIDS, more than tuberculosis and more than malnutrition, according to the Measles Initiative, a partnership of the American Red Cross and various United Nations agencies.

Measles is often complicated by other illnesses related to poverty. Studies in Bangladesh, the Philippines, and Uganda found that up to 79% of measles cases were followed by pneumonia or diarrhoea, leading to a higher fatality rate

Likewise, children with AIDS have increased susceptibility to diarrhoea, pneumonia, tuberculosis and other infections. These diseases are also deadlier for people with AIDS compared with those without AIDS.

Health funding

This bleak picture could be transformed if governments committed to improving health care delivery systems, an editorial in the *Lancet* notes, hopefully without creating new bureaucratic structures or provoking political infighting.

'It is, however, naive to think that the research, development and implementation of new strategies can be undertaken without more resources devoted to health care, even if in the long run they will become less expensive as efficiency improves,' Habicht noted in a separate press release.

Unfortunately, international funding for health care in developing countries is flagging, he added, and Washington is proposing to spend one-third less on international maternal and child health in the next federal budget.

One bright spot is Canada, which has lately increased its support for children's health programmes. The Canadian International Development Agency (CIDA) says it will give $143.6 million to immunisation and vitamin A programmes around the world.

Vitamin A deficiency is the leading cause of preventable blindness in children and raises the risk of disease and death from severe infections. Supplements have been known to reduce mortality 50% for acute measles sufferers.

'We know how to prevent the deaths of millions of children,' Habicht concluded. 'Now we just have to do it.' – *IPS* ◆

With contributions from Ranjit Devraj in New Delhi, Joyce Mulama in Nairobi, and Stephen Leahy in Brooklin, Canada

Risk perception and coping responses in a SARS infectious outbreak

Chan Chee Khoon comments on attempts to 'normalise' the casualties engendered by the SARS outbreak.

Risk analysis and risk perception

SPEAKING at a public forum in Penang, Malaysia on 17 April 2003, cardiologist Dr Ong Hean Teik and some of his medical society colleagues urged the Malaysian public not to over-react[1] to the Severe Acute Respiratory Syndrome (SARS) epidemic, stressing the low case fatality ratio which at the time was casually estimated at 4-5% of clinically diagnosed SARS cases *(The Star,* 19 April 2003).

Professor Roy Anderson and his colleagues at Imperial College, London, and at Chinese University and University of Hong Kong have more recently re-calculated the numbers based on 1,425 cases in Hong Kong (about one-quarter of the cumulative total of cases worldwide), using parametric and non-parametric statistical techniques. They have estimated a case fatality ratio of 13.2% (6.8%, non-parametric estimate) for cases below 60 years of age, and 43.3% (55%, non-parametric estimate) for those aged 60 and above[2].

In the 1918-1919 flu pandemic which killed 30-40 million people worldwide[3], case fatality ratios were not reliably known, but have been variously cited at about 1% in the US[4], between 1-2% in Switzerland[5], and the global average probably did not exceed 5%. This was in the chaotic aftermath of the horrific bloodletting between European and other imperial powers[6].

A case fatality ratio[7] of 7-55% for SARS, if it is typical as well for the more affluent regions of South-East Asia and mainland China, Taiwan, and suburban Toronto, in less tumultuous times, is not much cause for comfort (although SARS is probably less contagious when compared to flu epidemics).

Of seat belts and surgical masks

Be that as it may, Dr Ong and similar commentators made the further comparison with the much higher occurrence of traffic deaths (and other illnesses) in Malaysia (not an innocent comparison, given that the ministries involved, Transport and Health, were caught in the cross-fire of intense factional rivalries within the Malaysian Chinese Association, MCA).

But amidst this calculus of risk between seat belts and surgical masks, we should also be grateful to Dr Ong and his colleagues for reminding us of our troubling capacity for selective anesthesia, for 'normalising' human health disasters especially when they occur among marginalised communities/with limited 'voice' – most glaringly, 3.1 million AIDS deaths mostly in sub-Saharan Africa in 2002[8], more than one million malaria deaths annually in poorer countries, and similarly high fatalities from tuberculosis, waterborne diseases (most importantly, diarrhoea), malnutrition, and other preventable diseases of poverty often acting in concert.

By contrast, the continent-wide uproar in Europe over 'mad cow disease' (bovine spongiform encephalopathy, BSE), which has recorded less than 200 deaths in the 15 years since the disease was first recognised in the late 1980s, seems grossly out of proportion.

Normalising death and disease

Amartya Sen once observed that if poverty itself were contagious, it would speedily dispel the nonchalance and indifference of the privileged and sequestered. Perhaps we are similarly 'under-reacting' to these persistent, devastating, but all too often invisible plagues and their social ecology?[9]

Six weeks after issuing a global alert on SARS, the World Health Organisation (WHO) announced 'that the Severe Acute Respiratory Syndrome (SARS) outbreak is beginning to come under control. Its medical officer for global alert and response Dr Mark Salter said that although the outbreak was not over, the disease had reached the "normalisation" phase... Since the WHO had issued recommendations on effective control measures, the disease had been successfully controlled in several places.... In Western Europe, individual-imported SARS cases have been immediately isolated and the disease has been stopped there and then... it was only in countries which had suffered from infections before the disease was identified that SARS was still spreading.' (*The Star*, 26 April 2003).

Many infectious outbreaks become less virulent as the epidemic ages, as host and pathogen co-evolve, as human coping behaviours impinge on the pathogen's mechanics of transmission[10] and possibly on the genetics of its virulence. Less frequently, they may become (transiently, we

hope) more virulent[11].

Virulence aside, it would be sad if SARS became less fearsome the more its spread is confined to marginalised communities where cases may emerge, transmit disease, and die (or recover) without attracting much attention, where there is limited institutional capacity to carry out the field epidemiology, meticulous contact tracing, ring-fencing and quarantines which are the mainstays at the moment against an out-of-control community spread.

In this connection, the British Broadcasting Corporation (BBC) noted that with privatisation and the collapse of the pioneering primary health care system in China:

'Millions of Chinese [have] lost access to free medical care because of [the] country's economic reforms... most people must [now] pay in cash when they see a doctor... As 90% of patients suffering from the atypical form of pneumonia recover relatively quickly, thousands of people [may be] attempting to heal themselves, or letting chronic [or acute] disease go untreated [while] authorities [remain] unaware of the spread of disease... It is a cheap solution for patients unable to foot the cost of medical treatment. But it means that authorities cannot [identify and] quarantine SARS carriers, and thus control the disease' (BBC, 15 April 2003 web posting).

People have a troubling capacity for 'normalising' human health disasters especially when they occur among marginalised communities with limited 'voice' – most glaringly, 3.1 million AIDS deaths mostly in sub-Saharan Africa in 2002. Picture shows an AIDS patient in Uganda.

Globalised science, commodified knowledge

Effective and cheap solutions however may not be on the horizon, given the unseemly rush to now patent the SARS coronavirus genomic sequences, by Canadian, US and Hong Kong institutions unable to resist the potential profits from diagnostic tests, vaccines, and medical treatments.

Further progress in SARS research may now have to contend with the secrecy dictated by commercial imperatives, in contrast to the early co-operative efforts and exchanges between otherwise highly competitive laboratories which identified the etiological agent in record time, and led to its sequencing within three weeks[12].

Dr Julie Gerberding, Director of the US National Institutes of Health (NIH), characterised it as 'defensive patenting' on the part of NIH, to keep the prerogatives within the public sector domain *(Nature,* 15 May 2003).

Those who are mindful of the Bayh-Dole Act (1980) and the Stevenson-Wydler Act (1980) in the US and how it paved the way for publicly-funded scientist-entrepreneurs to launch the biotechnology revolution, may be wary of this as a leaky safeguard with predictable consequences for global healthcare equity in a market-driven setting[13].

Patents on life forms are anathema to some, myself included, but if we have to live with patents in biotechnology, it might be better if patentable findings from publicly-funded research, conducted in an international collaborative effort and which are of global public health importance, should be vested in an international agency such as the World Health Organisation.

* * * * * * *

Postscript:

This article was written in April/May 2003. By late June 2003, the chains of transmission had been broken in most of the SARS-affected countries and the much-feared scenario of uncontrolled community spread into the peri-urban and rural hinterlands (areas with weaker institutional capacity) fortunately did not materialise in countries like China.

Remarkably, this rapid control was achieved in the absence of reliable diagnostics, vaccines, or efficacious therapies, notwithstanding the rapid success in identifying the etiological agent, SARS coronavirus, and determining its nucleotide sequence. WHO gave much credit to institutional responses such as isolation, contact tracing, ring-fencing, and quarantines (i.e. centuries-old techniques) for rapidly bringing the pandemic under control.

Less mentioned were the individual coping behaviours such as reduced travel to SARS-affected areas, avoidance of restaurants and crowded locations, delays or cancellations of elective medical and surgical procedures, and outpatients diverting to non-hospital primary care settings[14].

In the rural areas (in China), lower population density and lesser possibilities for nosocomial spread may have further combined with *ad*

hoc community initiatives drawing upon the institutional memories of China's barefoot doctor system – rough and ready at times including arbitrary blockades and vigilante-style sequestrations – to successfully deal with the limited leakage (or backflow?) from affected urban metropolises.

The global public health community is now keenly watchful for any signs that SARS may exhibit seasonal patterns of re-emergence and subsidence, characteristic of about a third of common colds which are caused by viruses from the same family and which show a winter and spring seasonality.

(25 August 2003)

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Endnotes

1 Evidently, the hospital industry was not immune to over-reaction either, as when an unnamed private hospital in Kuala Lumpur imposed a 10-day quarantine without pay on two operating theatre nurses after they flew back from New Zealand in April 2003 with a one-hour transit stop in Singapore. Deputy Director-General of Health Dr Ismail Merican deplored such excessive measures, all the more from health care professionals, and further noted that 'the main implication (of the quarantine) is that you will be generating a fear of reporting as healthcare staff may be afraid to report that they have been to affected countries for fear of a pay cut' ('Don't go overboard, Ismail tells hospitals', *The Star,* 18 May 2003). This was a necessary corrective in the wake of an earlier statement by the Deputy Labour Minister Dr Abdul Latiff Ahmad who had declared that workers subjected to SARS quarantine should use their annual leave for their period of confinement, and 'if the employees have used up their annual leave, they can still apply for unpaid leave' (*The Star*, 29 April 2003).

2 CA Donnelly, AC Ghani, GM Leung, et al. 2003. 'Epidemiological determinants of spread of causal agent of severe acute respiratory syndrome in Hong Kong', *Lancet* Volume 361, Number 9369 (10 May 2003).

3 NP Johnson & J Mueller. 2002. 'Updating the accounts: global mortality of the 1918-1920 "Spanish" influenza pandemic'. *Bull Hist Med.* 76(1):105-15.

4 Interview with CJ Peters: SARS – The New Viral Threat (*Web*MD, 7 April 2003) http://my.webmd.com/content/article/63/71969.htm

5 Calculated from data reported in: CE Ammon. 2002. 'Spanish flu epidemic in 1918 in Geneva, Switzerland'. *Eurosurveillance Monthly* 7(12):190-192 http://www.eurosurveillance.org/em/v07n12/0712-226.asp

6 Gina Kolata. 1999. *Flu: The Story of the Great Influenza Pandemic of 1918 and the Search for the Virus That Caused It.* New York: Farrar Straus & Giroux.

7 The case fatality ratio, for a number of reasons, is an unstable parameter when an epidemic is rapidly evolving. At this juncture, it is also an artifact of case definition criteria – currently, WHO's criteria for suspected and probable SARS cases – which will very likely change when more reliable laboratory tests for SARS infection are available. When used in combination with revised clinical criteria, the currently designated suspected and probable SARS cases may well be re-assigned to different categories, and case fatality ratios would be correspondingly revised in line with the new defining criteria.

8 AIDS Epidemic Update, December 2002. Geneva: UNAIDS/WHO.

9 The social ecology of SARS includes the politically influential tourism sector (and its ancillary industries) in Malaysia, with foreign exchange earnings second only to manufacturing exports, and accounting for 7% of GDP in recent years. With the notable presence of corporations such as the Faber Group Bhd Pernas International Holdings Bhd, YTL Corp Bhd, Landmarks Bhd, and Sunway City Bhd, in this service industry, the Malaysian Institute of Economic Research has projected that GDP growth for 2003 could fall from 5.7% to 3.7% (subsequently revised upwards to 4.3% in July 2003), which helps explain the strenuous efforts to keep Malaysia off the WHO list of SARS-affected countries where local transmission has been detected. The local travel and hospitality industry desperately urges its nervous patrons to not 'over-react' to the SARS epidemic – they may be right about overly active survival instincts, but one would be reasonably wary about them as impartial arbiters of 'appropriate' risk perception in a local context. The same individuals (and their political representatives) however urge caution upon those who contemplate travel outside the country, to SARS-affected locations such as China, Hong Kong, Taiwan, Singapore, and Toronto.

10 Not surprisingly, risk avoidance in the SARS-affected areas seemed to be more available to some than to others, along a social gradient where other health inequities have been documented in many instances ('Is money the best SARS defense?' *International Herald Tribune,* 29 May 2003).

11 P Ewald. 1994. *Evolution of Infectious Disease.* New York: Oxford University Press.

12 A powerful demonstration of what's possible with the globalisation (of biomedical research), contrasted against the illogic of commodification of 'intellectual property'.

13 GT Keusch & RA Nugent. 2001. 'The Role of Intellectual Property and Licensing in Promoting Research in International Health: Perspectives from a Public Sector Biomedical Research Agency.' Commission on Macroeconomics and Health (Working Paper No. WG2:7). Geneva: World Health Organisation.

14 At the 2003 Malaysian Health Conference 'Partners in Health' (23-24 June 2003, Kuala Lumpur) where there was much whining over the declines in tourist arrivals and patient admissions, I didn't make myself very popular with the travel and hospitality industries and the Association of Private Hospitals of Malaysia when I suggested that some degree of controlled or graduated hysteria probably helped in speeding up control of the outbreak.

WTO competition treaty will undermine development, says expert

Criticising the proposed WTO agreement on competition policy for its 'one-size-fits-all' approach, a Cambridge don has argued that an appropriate competition framework for developing countries would differ between countries depending on their level of development, the state of their governance and other factors.

Martin Khor

A WORLD Trade Organisation (WTO)-based multilateral competition framework, as proposed by the EU, would undermine the ability of developing countries to control their economies and foster their own domestic companies, according to the main resource person at a United Nations Conference on Trade and Development (UNCTAD) experts' meeting on competition law and policy.

'It is perfectly legitimate and reasonable for developing countries to argue that they do not have sufficient experience with competition laws to be able to participate meaningfully in a treaty concerning multilateral competition policy,' said Prof. Ajit Singh of the Faculty of Economics and Politics, University of Cambridge.

The headquarters of Japan's Ministry of International Trade and Industry (MITI). The important coordinating role MITI played through the so-called deliberation councils will no longer be permitted signatory countries under the EC's proposals for a WTO competition accord.

The Cambridge academic was presenting a paper on 'Multilateral competition policy and economic development: a developing country perspective on the new European Community proposals', at the UNCTAD-organised meeting (2-4 July) of the intergovernmental group of experts (IGE) on competition law and policy.

Discussants at the panel on 2 July included representatives from the EU Commission, India, Thailand, and Argentina, with more comments from the floor.

Ajit Singh's paper aims at giving a development view of the current proposals of the EU for establishing a new WTO agreement on competition policy. The EU is the main proponent of an agreement, whilst several developing countries are against starting a negotiation towards such a treaty. A decision is to be taken at the WTO's Cancun Ministerial Conference, on the basis of an 'explicit consensus', whether negotiations should begin.

Ajit Singh said his main argument is that: 'The multilateral competition policy proposed by the EU is neither suitable from the perspective of developing countries nor from that of the world economy as a whole. As far as developing countries are concerned, the policy goes too far in instituting homogenisation of competition policy and thus deprives them of important developmental instruments.

'On the other hand, from an international perspective, the proposed policy is too feeble to deal with the challenges posed by large multinational corporations intent on monopolising world markets.

'To deal with this, what is required is greater policy autonomy for developing countries and at the same time a more stringent framework for dealing with mammoth multinational companies and their endless appetite for overseas expansion, often through mergers and takeovers. Both the EC's proposals on competition policy and on foreign direct investment seem more concerned to provide TNCs [transnational corporations] with additional tools to give them unfettered access to developing countries and undermine their ability to control the economy and foster their own domestic companies and national economic development.'

Ajit Singh called on the EC to recognise the complexity of the important wider competition policy issues and their serious implications for development. It is these that contribute to the lack of consensus among professional economists, between developed countries themselves and also between developing and developed countries.

He argued against a one-size-fits-all approach to competition policy for developing countries. When condi-

tions for competitive equilibrium do not exist, economic efficiency may require restrictions on competition, he said. However, the nature of restrictions would differ in each case, requiring a case-by-case analysis of the conditions.

Industrial policy

In a separate paper, Ajit Singh had recommended for developing countries the Japanese competition policy as a role model during the period 1950-73 when Japan was more like a developing country. Also relevant is the Korean competition policy during its high-growth phase in the 1970s and 1980s. In both, although there were competition laws, these were subordinated to requirements of industrial policy in each country.

Based on concepts and historical evidence, said Ajit Singh, an appropriate competition policy for development would differ between countries depending on their level of development, the state of their governance and many other factors.

'This requires a case-by-case approach rather than a one-size-fits-all. For many countries Japanese and Korean industrial policies will be a useful role model. For some others, as Prof. Laffont (one of the world's leading industrial organisation economists) suggests, no competition policy may be suitable at all.'

Ajit Singh emphasised the importance of dynamic efficiency as the central element in any consideration of competition policy for developing countries. This highlights the role of profits, investments and technical progress as well as the achievements of an appropriate blend of competition and co-operation in the operation of competition and industrial policies.

Coherence between these two policies is essential, and, in general, this will involve the competition policy being subordinated to the industrial policy during the course of economic development. This dynamic perspective is very much in line with the emphases of the modern theory of industrial organisation.

EC proposals

Ajit Singh asked how the EC's multilateral competition policy proposals measure up to the requirement of an appropriate competition policy for developing countries.

He noted that the EC's revised and more modest proposals for a multilateral competition policy have the following main features:

• All member countries should declare hard-core cartels to be illegal. Countries should co-operate in implementing such a ban. Other than this ban on hard-core cartels, countries can have any provisions in their competition laws as they like.

• However, these domestic competition laws should be in conformity with the core WTO principles of most-favoured-nation (MFN) treatment, non-discrimination, national treatment, transparency and procedural fairness.

• There would be only limited application of the WTO's dispute system. It would not cover individual competition cases, but would be limited to assessing the overall conformity of the actual law, regulations and guidelines of general applications against the core principles contained in a WTO agreement, including a ban on hard-core cartels.

Ajit Singh asked whether these new EC proposals are scaled down sufficiently so as not to harm the developmental interests of emerging countries. He said that on the face of it these EC proposals would seem to be reasonable as it claimed the multilateral framework involves only a minimum set of rules. It does not ask countries to adopt a uniform competition policy, but only to make hard-core cartels illegal.

However, said Ajit Singh, the EC proposals not only require all competition laws to incorporate the cartel provision but also subject member countries to accept the core principles of MFN, non-discrimination, etc.

Ajit Singh stressed that these principles are not in the best interests of developing countries. They do not recognise the great disparity between rich and poor countries in their technological development, human capital and infrastructural facility, the cost of raising external funds, etc. Developing-country corporations need the principle of affirmative action, i.e. non-reciprocity, to give them a chance to build their productive capabilities.

In the absence of an affirmative-action programme, the WTO concepts become onerous from a developmental perspective. This is particularly the case when market access is added to these principles.

Although market access is at present not included in the WTO core principles relating to competition policy, the EC may find it tactically prudent to introduce it into the discussion at a later date when the rest of their proposals have been accepted, Ajit Singh noted.

Indeed, a World Bank study in 2003 suggests that market access is almost always linked to the question of competition policy.

'The basic aim of the EC would appear to be to establish a framework based on WTO principles which will give their multinational competitors unfettered access to developing-country markets. Essentially they will be able to invest whenever they like, wherever they like and whatever they produce,' he said.

'It would seem that for tactical reasons this objective is being approached in two stages. In the first stage only action against hard-core cartels is being asked for, plus adherence to the so-called key WTO principles.

'At the next stage, when poor countries in relation to competition policy have accepted these core principles, they will be asked to accept the market access part of the EC programme as well. This may be regarded as speculation but it is fully warranted by the experience of developing countries at the Uruguay Round and at subsequent negotiations on these subjects at the WTO.

'To sum up, contrary to impressions given, the latest EC proposals contain significant elements of the one-size-fits-all syndrome. Under the proposals, all signatory countries will

be subject to the core WTO principles of national treatment, etc outlined earlier. They limit the domain of policy options which developing countries adopt to assist economic development.'

For example, he said, two of the most important policies used by the Japanese government during that country's developmental phase will no longer be permitted. These are administrative guidance and an extremely important co-ordinating role of MITI through the so-called deliberation councils.

In relation to the issue of 'modalities', Ajit Singh said that to the EC this was simply a minor procedural matter of setting out an agenda and a timetable for negotiations but developing countries attribute a more substantive meaning to the concept.

This includes a consideration of the following kinds of questions: what kind of competition policies should be considered in the negotiations – all kinds or just multilateral and plurilateral, or domestic as well as bilateral? What kind of burden would such policies impose on developing countries and what can be done to relieve these burdens? The answers to these questions are important for defining the terms of modalities to be followed and for the focus on prospective negotiations.

'However, it is quite clear that we are far away from satisfactory answers to these questions. Therefore any negotiations on the subject are premature. The Working Group has made some progress but there is still a need for a further period of reflection and clarification of issues between developed and developing countries,' he said.

Ajit Singh added that developing countries have a substantive point that unlike Canada and the US, which have had competition policies in their domestic economies for the last 100 years, until the end of the 1980s, very few developing countries had any competition laws at all. Most of the 90 or so developing countries which now have such laws acquired these only during the 1990s on the encouragement of the international financial institutions and the Organisation for Economic Cooperation and Development (OECD).

However, for such laws to be effective, new institutions have often to be created, judges and lawyers trained and the laws understood and assimilated by the corporations and the people. All this takes time, perhaps a couple of decades for the appropriate social and legal culture of competition and competition policy to evolve, as the record of the US and European countries shows.

'In these circumstances, it is perfectly legitimate and reasonable for developing countries to argue that they do not have sufficient experience with these laws to be able to participate meaningfully in a treaty concerning multilateral competition policy.'

Cartels

Ajit Singh also raised questions about the proposed prohibition of hard-core cartels. If there was such a solid case for banning hard-core cartels, why was it only in 1993 that the US strengthened its anti-cartel enforcement practices and subsequently the EU took a more serious view on it?

Economic theory does not have a black-and-white attitude towards cartels. Some cartels aim to maximise monopoly profits through collusion, but also result in greater price stability, intended or not, which promotes social welfare. Others do the opposite, i.e., seek to promote price stability but achieve neither this nor higher monopoly profits.

The EC needs to clarify whether the current proposals are a prelude to subsequent banning of state-supported international cartels (e.g., commodity agreements) and also domestic cartels (e.g., those used by the Japanese government during its developmental phase to promote industrial development, or cooperative arrangements between firms for their mutual development that may require investment and market coordination).

'It is not enough for the protagonists of the EC proposals to tell us that under the current scheme, developing countries may retain existing state-supported cartels. The important question is, what will be their position tomorrow vis-a-vis state and private cartels that may actually increase social welfare. These questions are salient to the discussion on the framework of modalities.'

Ajit Singh also asked why competition policy, which is normally a domestic issue, should be considered at all at the WTO, an organisation that concerns itself with multilateral issues in the field of trade. Competition policy is a complex undertaking and an enormous challenge that cannot be undertaken by an institution that is already overloaded.

The links between competition policy and trade are no more significant than many other issues such as trade and tax policy, or infrastructure deficiencies or education. It would be best for the WTO to confine itself to its core competences regarding strictly trade matters, rather than overextend through mission creep to an endless string of trade-related matters.

EC view

Stephen Ryan of the European Commission presented a paper by its Competition Directorate General on the interaction between competition policy and industrial policy.

He acknowledged that many developing countries have concerns about the advisability of introducing a competition policy either unilaterally or in the context of a WTO agreement, and one concern is that a competition policy may interfere with the country's freedom to operate appropriate industrial policy.

The EC wanted to allay these concerns because the only substantive area covered in the WTO discussion is hard-core cartels. There should be no tension between competition policy and industrial policy for a country which chooses a competition law that includes only a ban on hard-core cartels, he added.

Aspects of competition law whose interaction with industrial policy could be more sensitive are merger control, and abuse of domi-

nant positions. In such cases there should be clear criteria for assessment, for example to what extent industrial or development policy considerations should be factored into the competition assessment.

He added the interaction between competition and industrial policy can and should be one of complementarity. Tensions will arise, said Ryan, and his paper gave several examples of ways to manage them.

He said a possible WTO multilateral competition agreement based on current discussions would 'probably have a neutral effect on the relationship between competition policy and industrial policy' in that it would not create new tensions.

Peter Augustine from the Commerce and Industry Ministry, India, took a different view. Industrial policy and competition policy have their important roles in development, he said.The developed countries and newly industrialised countries (NICs) extensively resorted to deliberate industrial policy measures in an effective manner when they were developing.

Many of them implemented competition policy quite late in their development process and when they did so, it was done selectively, covering only sectors in which they had evolved comparative advantage, said Augustine.

He added that the Uruguay Round agreements had clipped policy flexibility for developing countries considerably. Instruments available to the present-day developed countries and the NICs are not available to developing countries today.

The provisions on special and differential (S and D) treatment (for developing countries) are largely ineffective as they are best-endeavour clauses or involve conditionalities or limited transition periods. 'The solution lies in leaving individual countries to autonomously undertake liberalisation efforts, taking into account their individual economic, trade, and development needs, rather than prescribing one-size-fits-all multilateral disciplines with non-operable and best-endeavour-type S and D provisions,' he concluded. ◆

Martin Khor is the Director of Third World Network

No justification for an investment agreement in the WTO

Kavaljit Singh challenges the rationale behind the move to incorporate a multilateral investment agreement within the framework of the WTO.

THE Fifth Ministerial Conference of the World Trade Organisation (WTO) will be held in Cancun, Mexico in September 2003, in the midst of several controversial issues. There has been no meaningful progress on agriculture, TRIPS and public health, and 'special and differential treatment' provisions of the WTO agreements. All the mandated deadlines agreed upon at the Fourth Ministerial Conference at Doha in 2001 have been missed.

In this context, attempts by the EU, Japan, South Korea and Canada to widen the scope of trade negotiations to encompass new issues – popularly known as 'Singapore issues' – are unfortunate. Among the new issues, investment happens to be the most contentious one. Although the Doha declaration stresses that negotiations on investment can commence only if there is an 'explicit consensus' among the member-countries of the WTO, yet the supporting countries are interpreting it as a mandate to launch negotiations in Cancun.

It is important to stress here that a prospective multilateral investment agreement (MIA) carries little support among the WTO's member-countries. Out of 146 WTO member-countries, more than 60 belonging to the developing world have articulated their opposition to launching negotiations at Cancun, while not even a dozen member-countries have backed the MIA. What is perplexing is that supporting countries are pushing their agenda for launching negotiations at Cancun without even arriving at a consensus on basic issues such as the scope and definition of investment.

Notwithstanding the proliferation of over 1,800 binding treaties that contain provisions related to foreign investment at the bilateral, regional (e.g. NAFTA, EU, and MERCOSUR) and sectoral levels, there is no comprehensive multilateral agreement on foreign investment. In the past, every country has used a variety of regulations to control foreign investment depending on its stage of development. The discriminatory forms of regulatory measures on foreign investment vary from country to country.

The Final Act of the Uruguay Round was signed in 1994 at Marrakesh. By incorporating the Agreement on Trade-Related Investment Measures and General Agreement on Trade in Services in the Final Act, the developed countries were successful in bringing investment issues under the GATT ambit.

For instance, host countries often impose pre-admission and post-admission regulations on foreign investment. It is important to stress here that regulations are not confined to the developing and the under-developed countries. Several developed countries (for instance, the US and Japan) have extensively imposed regulations on foreign investment in the past and many of them still regulate the entry of foreign investment in strategic sectors such as media, atomic energy, telecommunications and aviation.

Evidence also suggests that performance requirements such as local-content requirements and technology transfer help in establishing industrial linkages upstream and downstream and contribute significantly towards the economic development of the host country.

Past attempts

Past attempts to establish a multilateral investment regime through various forums have failed miserably. The first attempt to forge a multilateral agreement on foreign investment was made in the immediate post-World War II period. In 1948, the draft Charter to establish an International Trade Organisation (ITO) was presented at a meeting in Havana. Notwithstanding the fact that the US government was one of the driving forces behind the Havana Charter, the US Congress refused to ratify it. Consequently, the proposal for establishing the ITO was given up and the General Agreement on Tariffs and Trade (GATT) was launched as a temporary measure.

For nearly four decades since its inception, GATT never brought investment issues under its rubric and

maintained the dividing line between trade and investment issues. It was only at the Uruguay Round of GATT negotiations from 1986 to 1994 that the issue of investment was brought within its framework.

The failure to establish the ITO was one of the major reasons which facilitated a shift from multilateral to bilateral investment agreements. In the 1950s and 1960s, bilateral investment agreements were the dominant instruments of investment agreements. In those decades, the majority of bilateral investment agreements were geared towards protecting foreign investors against the threat of expropriation as many developing countries had undertaken nationalisation measures in the aftermath of independence from colonial rule.

In the 1960s and 1970s, international investment negotiations shifted to other fora. Big capital-exporting countries led by the US started initiating discussions on investment issues at the Organisation for Economic Cooperation and Development (OECD), while the developing countries started raising investment issues with an entirely different perspective at the United Nations in the 1970s. The UN initiatives were geared towards drafting a Code of Conduct on Transnational Corporations to curb abuse of corporate power and establish guidelines for corporate behaviour in the host countries. Concerned with the fact that the Code was unlikely to serve the interests of capital-exporting countries, the US persuaded other developed countries to block the draft Code of Conduct at the UN. Consequently, the Code was not approved.

UN initiatives also lost momentum in the 1980s when excessive build-up of external loans triggered the debt crisis in many developing countries. The drying up of commercial bank lending forced indebted countries to open their doors to foreign investment.

Initiatives at the UN did not deter the US from aggressively pursuing the investment liberalisation agenda. Despite its failure to include investment in the Tokyo Round negotiations during 1973-79, the US remained resolute in pushing a comprehensive agreement on investment at GATT. By incorporating the Agreement on Trade-Related Investment Measures (TRIMs) and the General Agreement on Trade in Services (GATS) in the Final Act of the Uruguay Round, the developed countries were successful in bringing investment issues under the ambit of GATT.

Workers laid off by Enron. Recent corporate scandals, from Enron to WorldCom, have highlighted the need for greater corporate transparency, disclosures and accountability.

To circumvent opposition from the developing countries, the developed countries led by the US also called upon the OECD to launch a comprehensive binding investment treaty known as the Multilateral Agreement on Investment (MAI) which included a heavy dose of investment liberalisation, protection of investors and a dispute resolution mechanism. Because of differences among the OECD member-countries on certain issues coupled with popular opposition by the NGOs and trade unions, the MAI was finally shelved in November 1998. After the collapse of the MAI negotiations, the Working Group on Trade and Investment at the WTO remains the only multilateral forum where investment issues are under discussion at present.

Investment myths

Current approaches advocating international investment agreements are grounded on several myths. There is no evidence to prove conclusively that investment agreements lead to increased foreign investment in all countries. Nor does it boost the prospects of obtaining investment in future. Since the 1980s, a number of developing countries have carried out wide-ranging investment liberalisation measures and have signed numerous bilateral investment agreements, yet they receive less than one-third of total foreign direct investment (FDI) flows. Further, FDI flows are highly concentrated in a few developing countries. The bulk of portfolio investment flows are also concentrated in a few 'emerging markets'.

Foreign direct investment is not a panacea for development. There is hardly any reliable cross-country empirical evidence to support the claim that FDI per se accelerates economic growth. In the present circumstances, it is quite difficult to establish direct linkages between FDI and economic growth if other factors such as competition policy, labour skills, policy interventions and comprehensive regulatory framework are not taken into account. Further, in the absence of performance requirements and other regulations, many of the stated benefits of FDI would not occur.

Liberalisation of investment by itself cannot enhance growth prospects because it is a complex process, subject to a wide range of factors. If one tries to match the periods of investment liberalisation with the economic performance of countries,

the results may appear contradictory. Growth started deteriorating around the 1970s when many countries moved towards liberalised investment regimes. The 1980s and the 1990s witnessed sharp deterioration in the economic performance of many countries, both developed and the developing ones.

The worst decadal-growth performance occurred in the 1990s. Restrictions on investments have not necessarily led to poor economic performance. Many countries enjoyed high growth without liberalising their investment regimes. Japan, China and South Korea are some of the examples.

To a large extent, the quality of investment determines the growth and productivity rates. Since most portfolio investments have tenuous linkages with the real economy and are speculative in nature, it would be na•ve to theorise on their contribution to economic growth. Besides, the bulk of portfolio investment is prone to reversals. Sudden withdrawal of capital can negatively impact on the exchange and interest rates. Several episodes of financial crisis in Mexico, South-East Asia and Turkey in the 1990s point to the pre-eminent role of unregulated short-term portfolio flows in precipitating a financial crisis.

In the last two decades, the attributes of FDI flows, known for their stability and spillover benefits, have also changed profoundly. FDI is no longer as stable as it used to be. The stability of FDI has been questioned in the light of evidence which suggests that as a financial crisis becomes imminent, transnational corporations indulge in hedging activities to cover their exchange rate risk, which, in turn, generates additional pressure on the currencies. Since the bulk of FDI flows are associated with cross-border mergers and acquisitions, their positive impact on the domestic economy through technological transfers and other spillover effects has been significantly diluted.

The proposed multilateral agreement on investment in the WTO has many flaws. With emphasis on enlarging and protecting foreign investors' rights, the MIA could constrict the policy space of countries to manoeuvre investment policies in accordance with their developmental priorities. As witnessed in the case of the North American Free Trade Agreement (NAFTA), private corporations have exploited the provisions of the agreement to challenge those regulatory measures that infringe on their investment rights. The growing conflicts between private corporations and regulators are the outcome of the investment provisions under Chapter 11 of NAFTA which entails non-discriminatory treatment to foreign investors.

Although the EU favours the adoption of a GATS-type approach on investment in the WTO allowing countries to select the sectors which they wish to liberalise, there is no guarantee that it would provide adequate policy space to member-countries. By 'locking in' reforms, the GATS approach generates additional pressure on countries to undertake wider commitments over the years. It is pertinent to point out that once a country gives market access commitments in the WTO, it becomes difficult to reverse it.

Furthermore, it is difficult to fathom the relationship between a prospective investment agreement at the WTO and the over 1,800 existing bilateral and regional investment treaties. What would be the fate of these agreements if a multilateral agreement at the WTO comes into force? Would existing investment agreements become null and void? Till now, the Working Group on Trade and Investment at the WTO has not contemplated on this important aspect.

Another problematic issue pertains to the liberalisation of the capital account. At present, balance-of-payments issues in the WTO are restricted to current-account transactions. But an investment agreement at the WTO would necessitate liberalisation of the capital account. In the aftermath of the South-East Asian financial crisis, there has been a rethinking on liberalising the capital account in international policy circles.

The WTO is not an appropriate venue for negotiating an investment agreement. Since its mandate is confined to trade in goods and services, it has neither the jurisdiction nor the competence to deal with investment issues. The WTO's trade arbitrators, for instance, lack the expertise that would be needed to work out how much compensation a foreign investor should receive if a member-country violated the MIA.

Unconvincing justifications

Unfortunately, the proponents of the MIA have failed to address these fundamental issues. Their inability to produce substantial evidence in support of the MIA is also evident in the debates on this issue in the columns of the *Financial Times*. In a response to my article[1], Ms Maria Livanos Cattaui, Secretary General of the International Chamber of Commerce (the world's most powerful corporate lobby group), justified the need for the MIA on the grounds that a multilateral investment agreement is always a better bet than scores of bilateral ones[2].

This argument is fundamentally flawed on two counts. First, adoption of a multilateral investment agreement would not necessarily imply an end to bilateral agreements. Notwithstanding the establishment of a multilateral trade regime under the WTO, the US and the European Union have initiated and concluded several bilateral and regional trade agreements in recent years. Significantly, the bilateral free trade agreements signed by the US with Jordan, Chile and Singapore include aggressive safeguards for intellectual property rights, which go well beyond the benchmarks set in the WTO's trade-related aspects of intellectual property rights (TRIPS) agreement. If the TRIPS experience is any indicator, it would be incorrect to infer that once a multilateral investment agreement comes into force, the world would be free of a plethora of existing bilateral and regional investment agreements. With developed countries and corporate lobby groups

such as the International Chamber of Commerce consistently seeking higher standards of market access and investment protection, there is no guarantee that the MIA would put a stop to investment agreements in future.

Second, Ms Cattaui's argument that a multilateral investment agreement is preferable because it would enhance the bargaining power of weak countries betrays a lack of basic understanding about politics and power relations. It is too simplistic to assume that unequal power relations only exist at the bilateral level. Unequal power relations are manifested at every level, be it bilateral, regional or multilateral.

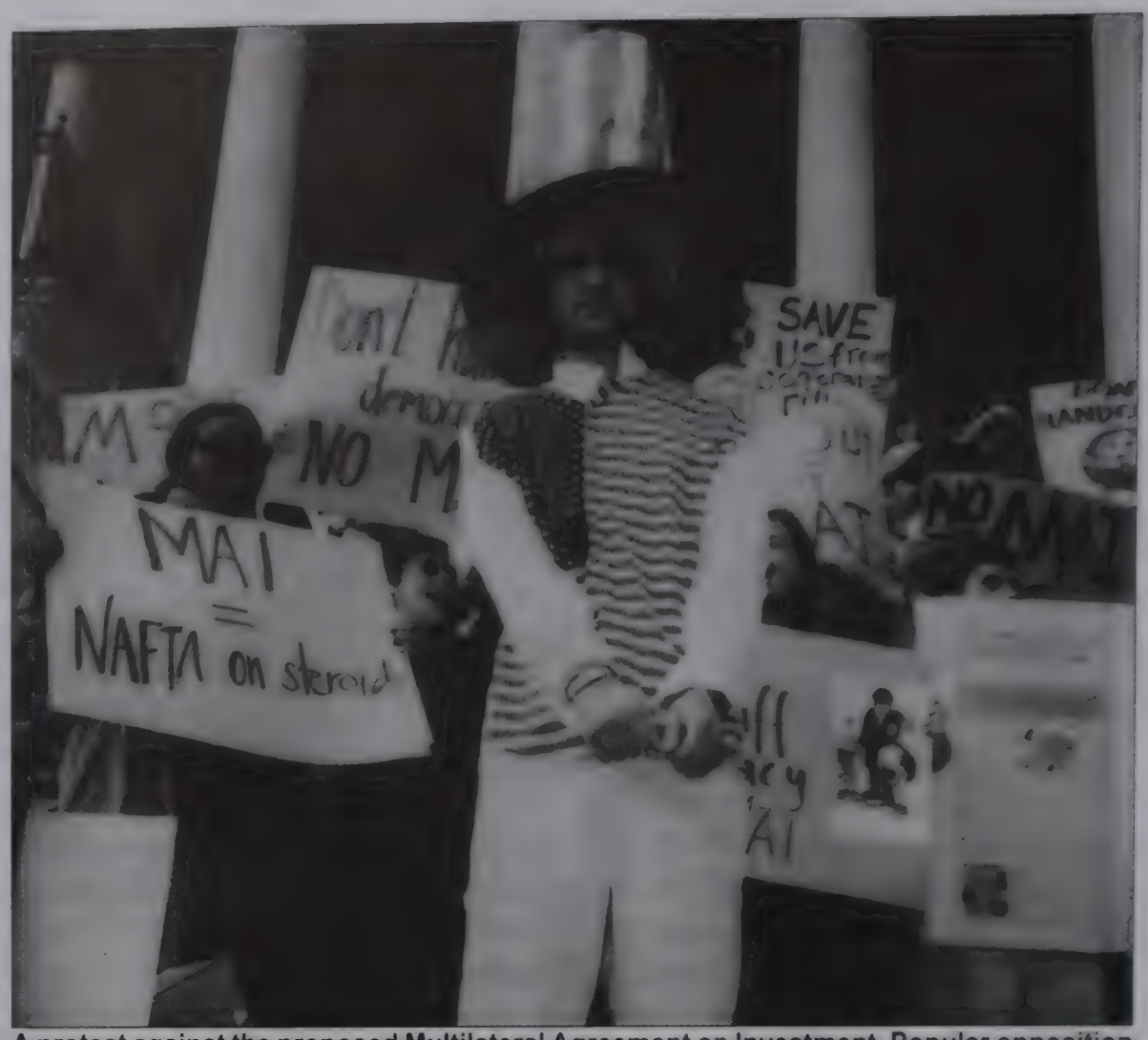
While criticising my article, Ms Kerstin Berglöf, another proponent of MIA, claimed that the principal purpose of the MIA is transparency[3]. If that is the case, why create complex binding rules pertaining to national treatment, performance requirements, expropriation and dispute settlement mechanisms that restrict governments' ability to regulate foreign investment? Transparency could be better promoted through much simpler mechanisms and on a best-endeavour basis. It is not my contention that investment policies of countries should not be transparent, but should not the same principles be applicable to foreign investors as well?

This issue acquires greater significance since transnational corporations have become the dominant players in the contemporary global economy with little public accountability. Recent corporate scandals, from Enron to WorldCom, have highlighted the need for greater corporate transparency, disclosures and accountability. Ironically, proponents of the MIA vehemently oppose attempts to enforce similar obligations on foreign investors.

It is also difficult to accept Ms Berglöf's other contention that transparency is the 'crucial component' that influences decisions of investors to invest. If lack of transparency is the root cause hindering investment, China's ability to attract $53 billion of foreign investment in 2002 needs to be explained. That China has been able to corner investments of such magnitude without the semblance of transparency seen in most democratically governed regimes is a pointer to the fact that there are no causal relationships between the extent of transparency and investment flows. The same is the case with Central and Eastern Europe, which witnessed a surfeit of foreign investment in its banking sector in the 1990s without adhering to any transparency and disclosure standards.

As highlighted by several NGOs in a recent memorandum, the WTO is not the proper forum to inculcate transparency, as its decision-making processes do not pay heed to the principles of transparency and democratic accountability. We have already observed in the Doha conference that the draft ministerial text was made available to member-countries at the eleventh hour, which hardly left any time for wider consultations. Disregard for transparency also marks the preparatory process for the Cancun conference. Arbitrary practices such as Chairs producing draft texts 'in their own responsibility' and organising 'Mini Ministerials' (where only a few member-countries are invited) do not bode well for the WTO, which is primarily a member-driven organisation, where decisions are expected to be taken by consensus.

To conclude, negotiations on investment rules should not be launched till their proponents produce conclusive evidence in support of their claims. ◆



A protest against the proposed Multilateral Agreement on Investment. Popular opposition by the NGOs and trade unions, and differences among OECD member countries led to the collapse of the MAI negotiations in 1998.

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Endnotes

1 Kavaljit Singh, 'Keep investment pacts off Cancun's agenda,' *Financial Times*, 7 July 2003.

2 Maria Livanos Cattaui, 'Multilateral investment pacts should be on Cancun agenda', *Financial Times*, 9 July 2003.

3 Kerstin Berglöf, 'Multilateral investment agreements will not hurt developing countries', *Financial Times*, 28 July 2003

Regulation of investments is a human rights obligation

As the EU relentlessly pushes for an investment treaty within the WTO, a UN High Commissioner has, in a report on 'Human Rights, Trade and Investment', issued a timely reminder that states are duty-bound under their human rights obligations to control and regulate investment, and to maintain flexibility to use certain policy options to promote human rights.

Chakravarthi Raghavan

An automobile factory in South Africa. Complementary measures are needed to ensure an appropriate balance of rights and obligations between states and investors.

FROM the perspective of their human rights obligations, states, in entering into investment agreements and undertaking investment liberalisation, have a duty and obligation to regulate and control investments, introduce new regulations, and retain the flexibility to use performance requirements and withdraw liberalisation commitments in light of experience, the UN High Commissioner for Human Rights has said in a report.

The report of the High Commissioner, *Human rights, trade and investment*, to the current session of the UN Sub-Commission on the Promotion and Protection of Human Rights comes at a topical juncture, as trade negotiators at the World Trade Organisation (WTO) are preparing for the 5th Ministerial Conference at Cancun in Mexico, where the question of launching negotiations on the 'Singapore issues' – of which investment is one – and agreeing by explicit consensus on modalities on each of the issues is on the agenda.

The study or work programme on trade and investment under the WTO's Doha Development Agenda, after two years, has not so far reached any common understanding on modalities – with proponents of WTO negotiations clearly avoiding the formulation of substantive issues under modalities, but focussing only on procedures.

There is an explicit reference in the report (E/CN.4/Sub.2/2003/9) to the Doha Development Agenda and the agenda for the forthcoming Cancun Ministerial meeting.

The report underscores that for investment liberalisation to be effective, the rights of investors must be balanced by complementary measures to promote and protect obligations of investors, including explicit acknowledgement of corporate social responsibility (both on voluntary basis and direct accountability for their actions), and protecting against certain governmental actions to promote investments resulting in a race to the bottom with regard to environmental and human standards.

The report is the fourth in a series of reports by the UN High Commissioner for Human Rights to the Sub-Commission. The earlier reports concerned human rights implications of TRIPS (in 2001), and liberalisation of trade in services (2002). Also, the High Commissioner had submitted a report to the UN Human Rights Commission in 2001 on the WTO Agreement on Agriculture and the right to food and right to development. The investment and trade issues were also considered by the Sub-Commission when two of its experts (Joseph Oloka-Onyango and Deepika Udagama) had in their working paper in 1999 addressed the issues raised by the OECD's proposed talks on a Multilateral Agreement on Investment (MAI).

The latest report is in response to the Sub-Commission's request at its 2002 session for a report on human rights, trade and investment. Since previous reports had focussed on the relationship between human rights and trade, the High Commissioner (Mr Sergio Viera de Mello) says, his present report concentrates on the relationship between human and investment, considering trade-related concerns only where they are directly related to investment.

While addressing a range of issues relating to investment liberalisation and the proliferation of bilateral and plurilateral investment agreements, and the moves propelled by the EU for WTO negotiations on investment, the current report also addresses the specific case of water privatisation as a means of clarifying the human rights implications of privatisation.

Balance of rights and obligations

The relationship between human rights and investment, says the High Commissioner's report in its conclusions and recommendations, depends on a range of variables – the country and sector in question, the type of investment, motivations of investors and the responsibility of government.

Investment liberalisation can modify the balance among those variables by strengthening investors' rights and affecting to an extent the policy choices that governments have to direct investment.

This may potentially increase the available resources needed to promote and protect human rights. But 'strengthening investors' rights alone could skew the balance of rights and obligations in favour of investors' interests over those of States, individuals and communities', the report points out.

Hence, from a human rights approach to investment liberalisation, complementary measures are needed to ensure an appropriate balance of rights and obligations between states and towards investors, bearing in mind states' responsibilities under human rights law, says the High Commissioner.

As states continue discussions in the WTO, regionally and bilaterally to achieve progressively higher levels of investment liberalisation through the negotiation and implementation of investment agreements, 'it is important to remember that States also have concurrent responsibilities under international law to promote and protect human rights.'

The Committee on Economic, Social and Cultural Rights has stated that, in compliance with their responsibilities to cooperate internationally to achieve the progressive realisation of economic, social and cultural rights, states should ensure that they give due attention to those rights in international agreements, including trade agreements.

In pursuance of this, says the report, states could consider including an explicit reference to the promotion and protection of human rights among the objectives of investment liberalisation agreements, either in the preamble or in the body of the agreement.

While not creating new obligations for the parties to an agreement, a reference would recognise the potential for investment to affect the enjoyment of human rights. Recognising this link could be an 'important step in avoiding downward pressure on human rights protection in the process of investment liberalisation'.

A reference to the promotion and protection of human rights would encourage interpretations of provisions of investment agreements that take into account states' obligations under human rights law. The report encourages states to raise their human rights obligations in dispute settlements where a decision of a tribunal might affect the enjoyment of human rights nationally or where the interpretation of a provision in an investment agreement might have a human rights dimension.

To ensure the right and duty of states to regulate investment, the report recommends that states should ensure that in investment agreements 'they maintain the flexibility to use certain policy options to promote and protect human rights'.

Similarly, states should maintain the flexibility to promote cultural diversity and to implement special measures to protect vulnerable, marginalised, disadvantaged or poor people. Moreover, it is important to highlight the need for states to introduce new regulations to promote and protect human rights in response to changing conditions and knowledge of health, water, education, environmental and other issues that affect the enjoyment of human rights.

In this context, broad interpretations of some provisions of investment agreements such as 'expropriation provisions' could affect the capacity or willingness of states to regulate for health, safety or environmental reasons; to this end, interpretations, or even explicit declarations, by parties to agreements that protect state action to fulfil human rights are encouraged.

The report also recommends that in the context of discussions in the WTO Working Group on the Relationship between Trade and Investment, the emphasis placed on the development dimension should be encouraged further. In this respect, it adds, it is relevant to note that the Declaration on the Right to Development emphasises that states have the 'right and duty to formulate appropriate development policies that aim at the constant improvement of the well-being of the entire population and of all individuals'.

There is also a need to promote investors' obligations alongside investors' rights.

'Voluntary codes of conduct promoting corporate social responsibility are important; yet, as investors' rights are strengthened through investment agreements, so too should their obligations, including towards individuals and communities.'

To this end, initiatives to clarify and specify the legal responsibility of actors towards individuals and groups in the context of investment are important. Further, states could consider the issue of legal responsibility of investors within discussions concerning continuing investment liberalisation and consider acknowledging these responsibilities in investment agreements.

Since international cooperation and assistance is a fundamental aspect of international human rights obligations and a necessary measure to secure a just and equitable international and social order, wealthy countries should meet their commitment to provide 0.7% of GNP as official development assistance and to ensure that such assistance is directed to-

wards development and poverty alleviation in poor countries. In the context of negotiations over new investment agreements, it is strongly encouraged that such targets be included among the obligations in investment agreements. To do so will take into account the fact that while investment liberalisation can lead to higher levels of investment for countries having the requisite market size and infrastructure, investment liberalisation alone will not attract the necessary finances needed to promote the right to development in poorer countries.

Privatisation and human rights

On the issue of promoting human rights in the context of privatisation, the report notes that effective provision of essential services in the health, education, water, sanitation, energy, transport and communications sectors has a significant role in promoting and protecting human rights.

The promotion of the rule of law – popular participation, transparency, legality, equality and accountability – is a significant aspect of ensuring access to essential services for all.

'When the Government seeks private sector investment in these sectors then all relevant actors – not only Government and the private sector but also intergovernmental organisations and international financial institutions – have responsibilities: to promote public participation in decisions concerning private sector participation; to ensure transparency in decision-making and in information concerning privatisation; and to build and maintain accountability mechanisms to protect the rights of individuals and groups in relation to the acts of States and investors,' argues the report.

The clarification of the responsibilities of the private sector towards individuals and groups should also consider investors' obligations in the context of privatisation.

In calling for increased dialogue on human rights and trade, the report points out that there is not only a need to bring a human rights perspective to investment, but also to ensure that

Discussions under the work programme on trade and investment mandated by the Doha Ministerial Conference in 2001 *(pic)* have yet to yield a common understanding among WTO members on modalities for possible negotiations on investment .

human rights experts and mechanisms understand sufficiently the linkages between investment and the enjoyment of human rights and that they take investment issues adequately into account.

'In particular,' says the report, 'there is a need to improve dialogue between human rights, trade, finance and environmental practitioners and, specifically, social sector and trade/finance ministries at the national level.'

At the international level, greater dialogue between delegates at the WTO and delegates representing the same country in the Commission on Human Rights could be an important step. Within civil society groups, greater dialogue between trade and human rights organisations at the national, regional and international levels is encouraged.

'Increasing dialogue between investment, trade, human rights and environmental practitioners could be a significant step in ensuring greater consistency and coherence in the formulation, implementation and monitoring of international treaties and in achieving globalisation that promotes the enjoyment of human rights for all.'

The report also recommends undertaking human rights assessments of investment liberalisation.

Such assessments of trade and investment rules and policies will be an important measure to gauge the extent to which trade liberalisation can promote and protect human rights.

In particular, discussion in the context of the WTO Working Group on Trade and Investment and the ongoing negotiations in the GATS Council should be informed, *inter alia*, by sound empirical evidence drawn from public, independent and transparent human rights assessments based on information gathered through a participatory and consultative process with concerned individuals and groups. In particular, such assessments should have a gender perspective and consider the real and potential effects of investment liberalisation on disadvantaged and vulnerable groups. Given that discussions on investment are ongoing, human rights assessments could be used to secure informed decisions on investment liberalisation in the future. As a possible field of further study, the Office of the High Commissioner therefore suggests that consideration be given to the development of methodologies for such assessments and the appropriate assistance needed to undertake them. ◆

The above first appeared in the South-North Development Monitor (SUNS – *issue no. 5397), of which Chakravarthi Raghavan is the Chief Editor*

Liberia: Not for pity's sake

In the Western media, Liberia has become the latest example of a 'failed state' requiring UN and US intervention to restore peace and security. However, as the following article, written before such intervention by a Liberian expatriate, reminds us, Liberia's descent into violence and criminality began in 1980 with a military coup staged by Samuel Doe – a coup welcomed by the US, which proceeded to support him militarily and financially.

Ezekiel Pajibo

A child soldier for one of the many armed groups in Liberia. The country's descent into political violence and criminality has continued unabated.

LIKE many expatriate Liberians, I have been tying up phone lines trying to reach relatives in Monrovia. The reports of violence in the mainstream press have deeper meaning for me; I worry about the fate of my sister and my mother, who was discharged from the hospital only two weeks ago. My sister told me that rocket-propelled grenades have landed on both her and my mother's houses. Mercifully, they survived, but as soon as the explosion destroyed the houses, both homes were thoroughly looted. My sister and mother are now among the million internally displaced Liberians. They were able to seek refuge at the Faith Healing Temple in Logan Town about 4 kilometres from their own homes. As I spoke to them, I could hear the taut voices of others, and of crying babies, in the background.

Liberians have become the new boat people fleeing their country in search of refuge. We have been running for the last 13 years, with the arrival of Charles Taylor. But we started running in 1980, when Samuel Doe took over the country after a violent *coup d'état* in which Liberia's 19th President and then-Chairman of the Organisation of African Unity (now the African Union) William R Tolbert was killed. The 1980 coup undermined and ultimately derailed the growing political reform and democracy movement which had emerged in the late 1970s to challenge Tolbert's True Whig Party dictatorship. It also signalled the country's descent into political violence and criminality, which has continued unabated.

'Strategic relation' with the US

Master/Sergeant Doe's seizing of the reins of power in Liberia was welcomed by the United States. The US viewed him as a line of defence during the Cold War, and they rewarded him appropriately. The Liberian government between 1980 and 1985 was the largest recipient of US aid in sub-Saharan Africa, during which the Liberian government received $500 million. But what did Doe do with the dough? The cash was certainly not spent on schools or hospitals; he did not construct new roads or maintain the country's infrastructure. He did, however, with US encouragement, improve and expand the Liberian military. The troops were better paid, they got better housing and they became more mobile, all the while raining terror and mayhem on their people. Thus was Liberian politics militarised. President Ronald Reagan called Doe his good friend and entertained him at the White House. Meanwhile, Doe became the most repressive Liberian leader in its history.

Under Doe, Liberia had a 'strategic relation' with the United States. The country was home to a broadcasting relay facility owned by the Voice of America, which beamed US propaganda to continental Africa and the Middle East; it hosted an Omega Navigation Station, a naval intelligence gathering entity for the south Atlantic; and the United States and Liberian governments had an agreement that allowed the US military access to Liberian sea and airport facilities, as long as the US promised to give an hour's notice to the Liberian government. Private sector ties blossomed too – the US-based Firestone Corporation had the world's largest private rubber plantation lo-

cated in Liberia.

Doe rigged the Liberian election in 1985. And he wasn't terribly subtle about it. For instance, after polling stations were closed, the ballot boxes assembled and counting began, Doe dismissed the Elections Commission and named a new team of 50 persons to count the ballots, who duly declared Doe the winner. The opposition cried foul but they were dismissed. The then US Secretary of State George Shultz sagely said that given the high illiteracy rate in the country, it came as no surprise that Doe had won the elections, and the US Government therefore duly recognised him.

In November 1985, one of the masterminds of the 12 April 1980 coup, Thomas Quiwonkpa, tried unsuccessfully to violently remove the Doe regime. He surrendered to Government soldiers after a brief battle, was summarily executed, and his body was paraded around parts of Monrovia as a warning to those who dared to challenge the military dictatorship. Just to be sure, Doe proceeded to lay waste to Nimba County region, from where the alleged perpetrators allegedly hailed.

Against this background, Charles Taylor entered the fray. The majority of Taylor's fighters were from Nimba County. He launched his war on 24 December 1989 and Liberia continues to reel from its effects. More than 200,000 have died, a million have been displaced and several hundreds of thousands are refugees in the region and elsewhere.

Despite the television pictures, the Liberian war has never just been about Monrovia. It spilled first into Sierra Leone, where the chopping off of limbs shocked the international community, then Guinea – where it was contained and where the US has been giving military assistance – and more recently into Côte d'Ivoire. West Africa, where no war for independence had ever been fought, has now become a theatre of armed conflict. And Liberia has become an eyesore in Africa.

It is easy for commentators to suggest that the most important reason the US should get involved in Liberia is because the country was settled by free people of colour from the US. Another reason that trips off the tongue for US involvement is a sort of argument by example: the British are in Sierra Leone, and the French are in Côte d'Ivoire, so the US should be in Liberia. For, of course, one wonders why the Belgians are not in the Democratic Republic of Congo or Burundi, or the Portuguese in Angola. Nonetheless, the main reason for US involvement is always left unstated – the US is morally responsible for its policy failures in Liberia. Without US support, Doe probably would not have had the means to brutalise his citizenry, which ultimately led to the civil war.

Liberian refugees. Liberians have become the new boat people, fleeing their country in search of refuge.

Under Doe, Liberia had a 'strategic relation' with the United States. The country was home to a broadcasting relay facility owned by the Voice of America, which beamed US propaganda to continental Africa and the Middle East; it hosted an Omega Navigation Station, a naval intelligence gathering entity for the south Atlantic; and the United States and Liberian governments had an agreement that allowed the US military access to Liberian sea and airport facilities...

As if this weren't enough, Charles Taylor is a fugitive from US justice, such as it is. He broke jail in Plymouth, Massachusetts, while awaiting an extradition ruling, before embarking on the creation of his National Patriotic Front of Liberia, the largest of three main guerrilla groups that fought in the country in the early 1990s. In other words, Mr Taylor escaped jail in the United States, fled to Liberia and destroyed the country. Surely, there is some US responsibility here. So, when Liberians are seen on international television crying out for US involvement, it is not for pity's sake, but for the sake of justice.

Liberia is an idea, and it's a very good idea: descendants of Africans taken from Africa and sold into slavery returning to reclaim their birthright. How did this idea get so corrupted and deadly? Therein lies the problem. This is a moral challenge of our time. Liberia is workable; it is not a failed state, it is criminalised and the criminals, including Mr Taylor, and perhaps one day the US government, have to answer for their crimes. For the Liberian people richly deserve peace. ◆

Ezekiel Pajibo is a Liberian living in Zimbabwe. The above is an edited version of an article which originally appeared in The Voice of the Turtle <voiceoftheturtle.org

Tony Blair's address to the US Congress

Tony Blair's speech to both houses of the US Congress in July sums up his imperial credo and New Labour's worldview as few utterances or statements have done. *Jeremy Seabrook* analyses the text.

Tony Blair and George W Bush at a joint press conference. An implication of the British premier's speech in the US Congress is that when the white, imperial powerful combine, the behaviour of a world full of naughty children can be sternly superintended by the parenting Blair and Bush provide.

TONY Blair received a rapturous reception when he addressed both houses of the US Congress on 18 July. Those who counted reported 17 standing ovations. This was in grateful recognition of his support to the US invasion of Iraq. He gave some substance to an otherwise shadowy coalition prepared to underwrite a preemptive war: this had, until now, always been known by the more familiar term, aggression.

Blair's posture throughout suggested the head pupil on prize day; nervous and alert, above all, eager for approval. His oration was a kind of imperial credo, a fundamentalist manifesto if ever there was one, complete with elisions, inconsistencies and all the ornamental mendacity indispensable to such high occasions.

The noise of the reception actually drowned out the substance. In view of the significance of the content, this deserves a somewhat more searching attention than it received at the time.

Blair acknowledged his subaltern status by thanking the President for his leadership. When he acknowledged the supremacy of the US, and his own unworthiness, he made the occasion sound like a prayer meeting.

He expressed his own 'mission about today's world'. He directly linked 11 September to the war on Iraq, describing the former event as a Prologue to the invasion, and promising, not without relish, 'many further struggles before it's over'.

We are living in a time, he goes on, when we can take no inspiration from history, since the context is unprecedented. 'Today, none of us expect our soldiers to fight a war on our territory. The immediate threat is not war between the world's most powerful nations. Why? Because we all have too much to lose...Because in the last 50 years countries like yours and mine have trebled their growth and standard of living. Because even those powers like Russia, China or India can see the horizon of future wealth clearly and know they are on a steady road toward it. And because all nations that are free value that freedom, will defend it absolutely but have no wish to trample on the freedom of others.'

As an outline of Western political 'philosophy', it is very revealing. It assumes that Russia, China and India will pursue the same developmental path as the US and Britain. He did not say exactly which indigenous peoples they would wipe out to seize the necessary resources, nor what lands and riches of others they will plunder if they are to follow where their Western mentors are indicating they should go. There appears to be, for Mr Blair and the US Congress, nothing problematic in urging the course they have historically followed. No wonder history has been dismissed as an instructor in these turbid times. Nor did Mr Blair seem to imagine there would be any difficulty in the US and Europe following their present trajectory of continuous growth and expansion, even while China achieves the level of penetration by the car seen in the West today – a mere 600 million vehicles or so, with almost as many in India.

'Freedom'

'No wish to trample on the freedom of others.' But the agents and instruments of economic dominance have left scarcely any place on earth untouched. These have overthrown traditional societies and ground into the dust ancient ways of answering need. The consequences for the victims of the enclosing of common resources and the obliteration of sustainable environments have scarcely been in the direction of those liberties which stir the breast of Bush and Blair.

He admits this in a poetic passage, when he speaks of the threat to

our freedom which comes 'because, in another part of the globe, there is shadow and darkness where not all the world is free, where many millions suffer under brutal dictatorship; where a third of our planet lives in a poverty beyond anything even the poorest in our societies can imagine; and where a fanatical strain of religious extremism has arisen...'

Shadow and darkness – the classic descriptions of imperialists itching to bring their version of light to the recalcitrant of earth. He links dictatorship, poverty and religious extremism; but he doesn't mean the dictatorship of the global market, nor the poverty of the atrophied imagination of the leaders of the 'coalition'; neither is there any whiff of extremism in the savage godliness of his own mission.

This has all generated a 'virus' (significantly, the image of 'disease' runs through the speech) called terrorism, which is 'unconstrained by human feeling'. How different this is from what Donald Rumsfeld called the 'compassion' of the war in Iraq! For the intervention in Iraq, even if no weapons of mass destruction (WMD) are found, 'history will forgive us'. Blair, it seems, can place himself outside of time: truly god-like, he encompasses the whole field of human endeavour in his cosmic sweep.

Despite our unequalled strength, it is not this power that will defeat this enemy. 'Our ultimate weapon is not our guns but our beliefs.' This is the prelude to the most defiant declaration of all – namely that 'our' attachment to freedom is no mere product of our culture. It is a myth that 'freedom, democracy, human rights, the rule of law are American values or Western values'. He repudiates any relativism: 'Ours are not Western values,' he thunders. 'They are the universal values of the human spirit, and anywhere, any time, ordinary people are given the freedom to choose, the choice is the same. Freedom not tyranny. Democracy not dictatorship. The rule of law not the rule of the secret police.'

A protester holds up a poster of Tony Blair outside the venue of an inquiry into the death of weapons expert David Kelly. Blair's credo depends upon other people's credulity; and on this depends his own political credibility.

All the ceremonial words are paraded beneath a hail of hosannas, even though their significance may have leaked away through over-use, neglect or manipulation. Few people repudiate freedom; but in this context, it doesn't mean freedom from want, hunger or sickness. Democracy, too, has few attackers. In the US now it has become the prerogative of any ordinary American millionaire to become President (which limits the field to about 10,000 individuals). In any case, when the people retreat into a sullen reluctance to participate because they can see no difference between politicians, democracy becomes less enthusiastic participation than the management of organised impotence. And human rights have a strangely empty ring to the thousands who die daily in sight of global plenty.

Mysticism

Tony Blair declared we must find the strength to fight for our idea of freedom, and the compassion to make it universal. 'It is a sense of justice that makes moral the love of liberty.' This is where religious mysticism gets the better of him. Justice scarcely characterises globalisation: indeed, its very 'success' depends upon a social injustice that is amplified, not mitigated, by the creation of wealth.

Disorder, he goes on in the same opaque vein, now spreads like a 'contagion'. The diseased world can be cured only by the medical skills of the West. Blair and George Bush go as doctors into the dark imperial hinterland, as their surgical strikes and skilful operations show, no less than the economic medicine and the remedies they prescribe.

War is justified by the risk that terrorism and states developing weapons of mass destruction will come together. 'Some states are helping people who regard it as God's will in the act of suicide to take as many innocent lives with them on their way to God's judgment.' Outraged, he declared, 'Companies and individuals with expertise (in WMD) sell it to the highest bidder.' In any other context, this would be the highest praise of the beloved global market to which he and George Bush exhibit ordinarily so strong an attachment.

In the end, he has to admit that the cloudy exaltations come down to a question of faith. Mr Blair expresses the belief that he is right 'with every fibre of instinct and conviction I have'. Mr Blair's credo depends upon other people's credulity; and on this depends his own political credibility. What a circular dance of suspended disbelief it all requires.

The climax, though, is reserved by the most 'dangerous theory in international politics today'. This, it

Justice scarcely characterises globalisation: indeed, its very 'success' depends upon a social injustice that is amplified, not mitigated, by the creation of wealth.

turns out, is the need to balance the power of America with other competitor powers, different poles around which nations gather.' Today it is an anachronism to be discarded like traditional theories of security.' The danger in this theory is that it promotes rivalry instead of partnership. Competition, it seems, is strictly for the realm of economics. 'Any alliance must start with America and Europe. Believe me if Europe and America work together, the others will work with us. But if we split, the rest will play around, play us off and nothing but mischief will be the result of it...' The solidarity of the powerful is the key, the white, imperial powerful, since when they combine, the behaviour of a world full of naughty children can be sternly superintended by the parenting Blair and George W Bush provide. The fundamentalist racist core of the ideology has rarely been enunciated more clearly by a Western leader since the era of formal decolonisation.

Imperialist delusion

Blair's 'historic' speech was a fawning, sycophantic celebration of American power. We must stay on in Afghanistan and Iraq to finish the job. 'We promised Iraq democratic government. We will deliver it. We promised them the chance to use their oil wealth to build prosperity for all their citizens, not a corrupt elite. We will do so.' He is clearly promising something to these countries which has yet to be vouchsafed the people of Europe and America. 'We will stay with these people so in need of our help, until the job is done.'

These people indeed. This is the heart of the imperialist delusion. The infants, the dependants, the incapable, the stunted – all who require our wisdom and strength, if they are to be 'trained' to govern their own lives. It is an old story. Blair is now the elderly dowager blessing the work of a new generation of empire-builders. 'My nation that watched you grow...takes enormous pride in our alliance and great affection in our common bond.'

After a declaration that the 'poison of terrorism' is incubated between Israel and Palestine, he stated that 'the extremist is able to confuse in the mind of a frighteningly large number of people the case for a Palestinian state and the destruction of Israel; and to translate this moreover into a battle between East and West; Muslim, Jew and Christian... The ending of Saddam's regime in Iraq must be the starting point of a new dispensation for the Middle East...Iraq free and stable...The whole region helped towards democracy...And to symbolise it all, the creation of an independent, viable and democratic Palestinian state side by side with the state of Israel.' This 'even-handed approach to justice' will have a powerful appeal across the world. Blair, faith-healer and healer of warring faiths, sees himself as the great conciliator, the bridge, not only between Europe and America, but between Judaism and Islam.

In his global flight, he returns to Africa, 'where there can be no freedom without justice; and no justice without declaring war on Africa's poverty, disease and famine with as much vehemence as we remove the tyrant and the terrorist'. It is curious how visionaries of all kinds seem to rely heavily on images of war, often on abstractions – on terror, crime or poverty. The remedy for this is opening up markets, the universal panacea for a 'prosperity that has to be sustainable'.

Planetary destruction

'Science and technology' are the key to this. 'Climate change, deforestation and the voracious drain on natural resources cannot be ignored.' Blair suppresses any idea that it is the very unleashing of free markets and commitment to the limitless growth and expansion proposed to 'cure' poverty, which have brought the planetary destruction he deplores. 'Unchecked,' he states, 'these forces will hinder the economic development of the most vulnerable nations first, and ultimately, all nations. We must show the world that we are willing to step up to these challenges around the world and in our own backyard.' In other words, we must have more, much more of what we already have in order to cure the evils which our version of freedom has wrought in the world.

Mr Blair's leaps of faith are agile and effortless. When he tells America that destiny has put it in this place in history, he is confirming that theirs is a God-given mission. 'Our job' – meaning that of the British – 'is to be there with you. You're not going to be alone.'

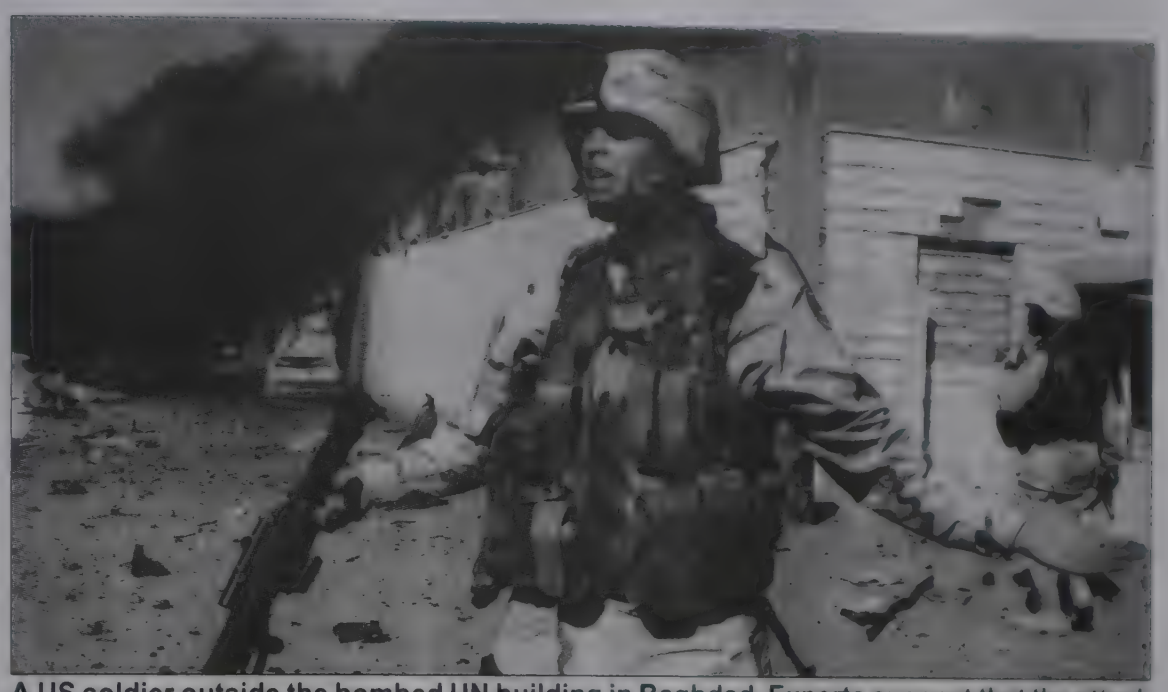
Blair is a proselyte who adores power, in which he discerns the hand of Providence; he is a missionary for holy wars; a true believer in the supremacy of a West that has privileged access to the human spirit. Nowhere has the Confiteor of imperialism been more clearly enunciated in our time. America has no need to proclaim its power, when so eager a lieutenant is at hand to do it, unbidden. ◆

Jeremy Seabrook is a freelance journalist based in the UK.

UN compound bombed for perceived US link, experts say

The deaths of the UN Under-Secretary-General Sergio Vieira de Mello and other victims of the bomb blast at the UN's Baghdad office in August are the terrible price that UN workers are paying for the perception that the world body is increasingly becoming a willing tool of the US-UK occupying powers.

Thalif Deen



A US soldier outside the bombed UN building in Baghdad. Experts suggest that the attack was an assault on an institution that is increasingly perceived as a political mouthpiece of the US.

THE massive bomb attack on the UN compound in Baghdad on 19 August was an assault on an institution that is increasingly perceived as a political mouthpiece of the United States, suggest Middle East experts and US academics.

The suicide bombing killed Under-Secretary-General Sergio Vieira de Mello, UN chief Kofi Annan's special representative in Iraq and one of the highest-ranking officials in the UN hierarchy, along with at least 19 other people – 14 of them UN staff.

More than 100 people were reported injured in the attack on a hotel that houses UN offices. 'The many who were injured were gravely injured,' UN spokesman Fred Eckhard said, raising the possibility that the final death toll might be much higher.

Despite the attack, the UN is 'determined to continue its (humanitarian) work in Iraq', Eckhard told reporters on 19 August.

'The loss of Sergio Vieira de Mello is a bitter blow for the United Nations, and for me personally,' Annan said in a statement released in Europe, where he was vacationing.

The bombing of the UN compound in Baghdad 'is yet another indication of the very low esteem by which most Iraqis – and indeed many Arabs and Muslims – hold the United Nations,' says As'ad AbuKhalil, a professor of political science at California State University.

He pointed out that many Iraqis associate the UN with 'the devastating sanctions and food rations imposed on their country by the US government'.

UN Secretary-General Kofi Annan 'has succeeded in turning this great organisation into a tool for US foreign policy, and the poor UN workers have paid a dear price,' AbuKhalil told IPS.

He said that Annan has offered sermons in New York about the ills of Palestinian violence, 'and yet the Arab world was astonished to see him silent over US bombing and occupation of one country after another: Afghanistan, and then Iraq'.

The UN has become a willing tool of the US, said Francis Boyle, professor of international law at the University of Illinois.

'For these reasons the United Nations has come to be seen as part of the US-UK belligerent occupation regime in Iraq and thus an appropriate target for indigenous resistance,' he told IPS.

Annan, added Boyle, 'has basically served as an errand boy for the United States', despite the UN charter, which establishes the UN Secretariat as one of the six independent organs of the UN.

Boyle, author of the forthcoming *Destroying World Order: US Imperialism in the Middle East Before and After September 11*, said that the last two Security Council resolutions on Iraq have demonstrated 'how subservient the United Nations itself has become to the imperialist designs of the United States'.

In the week of 11 August, the 15-member Security Council adopted a resolution, by a vote of 14 to nil, virtually recognising the Iraqi Governing Council, a 25-member political body created by the US and imposed on the Iraqi people.

The Security Council also decided to create a new UN Mission for Iraq, putting all UN activities under a single umbrella.

'The attack on the UN compound seems calculated to undermine the credibility of US rule in Iraq by trying to demonstrate that the occupation authorities are not only unable

to deliver services to the public but also unable to preserve law and order,' says Naseer Aruri, professor of political science at the University of Massachusetts.

UN headquarters was not only a 'soft target', but it is also seen as a symbol of an unwelcome external intervention in Iraq, in complicity with the US military occupation.

The bomb attack might have also been intended 'to discourage any future dispatch of multilateral forces to Iraq – peacekeeping or so-called nation-building – and let the Americans assume all the burden, get bogged down in the quagmire and eventually abandon ship', Aruri told IPS.

Rahul Mahajan, author of *The New Crusade: America's War on Terrorism*, said the attack on the UN compound 'is an unfortunate but predictable – and predicted – consequence of US military strategy in Iraq'.

In July, Major General Ray Odierno, commander of the US army's Fourth Infantry Division, warned his troops to prepare for the possibility of car bombings in Iraq. 'They are going after softer targets, because they know they're ineffective against military targets,' Odierno was quoted as saying.

Mahajan said that the 19 August attack is the latest development in the predictable logic of the 'war on terrorism'.

Since the 1990s, US military planners have known that 'America's unrivalled military superiority means that potential enemies that choose to attack us will be more likely to resort to terror instead of conventional military assault', he added.

'Without knowing more about the planners of these attacks, it is impossible to speculate on what this

A protest against UN moves to legitimise Iraqi Governing Council

Thalif Deen

THE United Nations provided a semblance of legitimacy to the recently US-appointed, 25-member Iraqi Governing Council when three of its senior officials participated in a meeting of the Security Council.

But the meeting was briefly disrupted on 22 July by two members of an anti-war US group, the International Occupation Watch Centre (IOWC), who shouted at the Iraqi delegates, accusing them of representing an 'illegal Council hand-picked by the United States'.

Gael Murphy, one of the protesters who was dragged from the visitor's gallery by UN security guards, dismissed the Governing Council and its three-member delegation as frauds.

'The United Nations should not have endorsed the Governing Council,' Murphy told IPS. 'This is another example of the continued collusion of the United Nations with the United States.'

She was also critical of UN Secretary-General Kofi Annan who, in his address to the Security Council on 22 July, described the Governing Council as 'an important first step towards the full restoration of Iraqi sovereignty'.

Murphy said the Governing Council, whose members have been described as 'American puppets', was the creation of the US and did not represent the will of the 27 million Iraqis.

'Moreover,' she said, 'how can the United Nations give legitimacy to a Governing Council, three of whose members are being investigated by Interpol (the international anti-crime agency)?'

Murphy also said that two other members of the Governing Council are known to have their own private militias in Baghdad.

'The credibility of the United Nations has been undermined,' she said.

The three-member delegation to the Security Council included Adnan Pachachi, a former foreign minister, Ahmad Chalabi, leader of the London-based Iraqi National Congress, and Aquila al-Hashimi, a diplomat who served in the foreign ministry under the former Saddam Hussein regime.

Murphy said that it was common knowledge that one of the members of the Iraqi delegation to the Security Council was a 'convicted criminal' in Jordan. 'If this is an indication of democracy – as preached by the US – Iraq is in deep trouble.'

The International Occupation Watch Centre – which is supported by United for Peace and Justice, a major US anti-war coalition with over 600 member groups – opened its office in Baghdad in July.

Medea Benjamin, one of the other protesters at the Security Council meeting on 22 July, said the Centre will enable ordinary Iraqis to inform people around the world about conditions under US military occupation. 'Americans have no idea of the total chaos in Iraq,' she said.

'Not only are there dozens of attacks on US soldiers every single day, but regular Iraqis are suffering with no electricity in 120-degree heat, and have no protection from thieves and other criminals, who are running rampant,' said Benjamin, who represents the San Francisco-based anti-war group Global Exchange, which backs the International Occupation Watch Centre.

While welcoming the presence of Iraqi delegates, Annan told the Security Council: 'Our collective goal remains an early end to the military occupation through the formation of an internationally recognised, representative government.'

It is vital, he argued, that the Iraqi people should be able to see a clear timetable with a specific sequence of events leading to the full restoration of sovereignty as soon as possible.

'In practical terms,' he said, 'this means that the establishment of the Governing Council must be followed by a constitutional process run by and for Iraqis.'

The UN, he said, will continue to play an active role in facilitating and supporting the political process, working together with the Governing Council, and the Coalition Provisional Authority (CPA) which is in charge of the civil administration of post-war Iraq. – *IPS* ◆

A session of the UN Security Council. The last two Council resolutions on Iraq have demonstrated 'how subservient the UN itself has become to the imperialist designs of the United States.'

means for Iraqi attitudes regarding foreigners and the United Nations.'

But historically, Mahajan said, the Iraqis have been a cosmopolitan people who welcome foreigners.

Eckhard said that security in Iraq was the primary responsibility of the occupying powers. 'We have to ask the question: "How safe is Iraq for the hundreds of UN staffers?" That assessment has yet to be made,' he added.

But Guy R Candusso, a member of the UN Staff Council's standing committee on security and independence, told IPS that his committee has demanded 'a full investigation to determine why adequate security was not in place to prevent a horrifying act'.

'We have called on the secretary-general to suspend all operations in Iraq and withdraw his staff until such time as measures are taken to improve security,' he added.

According to Eckhard, about 300 international civil servants work for the world body and its agencies in Iraq, including the World Food Programme, the UN Children's Fund (UNICEF), the UN Development Programme (UNDP) and the World Health Organisation (WHO).

Responding to questions, Eckhard said that political neutrality was the centrepiece of the UN's operations everywhere. 'But this is seen as a target for some.'

He stressed that UN staff members are apolitical. 'UN policy is determined by the Security Council,' he added.

Following a meeting on 20 August, the Council issued a statement condemning 'in the strongest terms this terrorist attack'.

'Such terrorist incidents cannot break the will of the international community to further intensify its efforts to help the people of Iraq,' the Council said. – *IPS* ◆

> ‘THE murderous attack on UN headquarters in Baghdad, in targeting civilians, was a violation of international law as well as a huge tragedy for the victims, their families and for the global organisation as a whole. It was also a violation of the Rome Treaty establishing the International Criminal Court, which criminalises attacks on UN personnel. But such an attack should not have been a surprise.
>
> The US-UK war and occupation of Iraq were and remain illegal. However happy Iraqis were to see the end of the regime of Saddam Hussein, they remain understandably angry towards military occupation.The UN should never have agreed to participate under the authority of that occupation force; to do so provides a political fig leaf for an illegal occupation. And now we're seeing the inevitable results of that participation, as anti-US militants target anyone working under the auspices of the US – including American, British and Danish soldiers, Iraqi translators, and now the civilian staff of the United Nations.
>
> Under the Geneva Conventions it remains the responsibility of the occupying powers – not the United Nations – to provide for the humanitarian needs of the Iraqi people – starting with food, medicine, and security. The US and UK are also responsible for providing security for the UN humanitarian operation as a whole. The occupation forces failed to provide sufficient protection to the United Nations, and bear responsibility for those security failures.
>
> The UN should pull out of Iraq, and refuse to return until the US ends its occupation. Only then should UN humanitarian agencies go back to work in support of the people of Iraq.– *Phyllis Bennis, author of* Calling the Shots: How Washington Dominates Today's UN *and* Before & After: US Foreign Policy and the September 11th Crisis ’

Fighting words

Despite the heavy hand of repression by the military junta, Burmese writers continue to put pen to paper even in the knowledge that they face potential imprisonment and endless harassment.

Tony Broadmoor

BOOKS are piled to the ceiling, occupying all available space, while dust-laden shelves hold countless Burmese texts. Twelve copies of the *1981 Nautical Almanac* sit out, waiting to find their place in the mix of this narrow, congested bookshop in downtown Rangoon.

After examining a list of banned Burmese authors, the owner climbs up and over a seemingly impenetrable wall of books in the back of the shop. He quickly reappears, passing down a stack of both fiction and non-fiction books currently banned by Burma's military government.

'They're okay,' he says reassuringly. 'But you can't have copies, because of their political background.' Making copies of such books – in a country where few can afford to buy original editions of even outdated paperbacks – is deemed by the ruling regime as spreading dissent and subversion, bookstore owners say.

It seems that these politically charged books are tucked away not as a precaution against potential reprisal from the government, but because 40 years of systematic censorship and government control has largely eliminated the desire to read them.

Journalists in Rangoon say a combination of factors have pushed the works of revolutionary writers like Bamaw Tin Aung and Bohmu Chit Kaung, which once shaped the political ideologies of Burma's youth, to the back bins, while at the same time putting a stress on the country's rich literary tradition.

Due to the perils of being associated with politics in Burma, many young people now eschew the sensitive topic for fear of retribution and imprisonment. This same fear has resulted in even fewer people pursuing writing careers, as the lives of writers are also heavily scrutinised. Writers, publishers and bookstore owners say they impose strict self-censorship on themselves in order to stay out of trouble.

'The majority of the young people feel down and out,' says one prominent Rangoon-based writer, explaining the younger generation's lack of interest in literature and politics. 'Their hopes have faded. They don't care about democracy.'

Despite the pressures facing writers in Burma today, nobody in Rangoon feels that the country's rich literary tradition is facing extinction.

Skewed histories

As hopes for the future dim, so too do memories of the past. History books written before Ne Win's military government seized power in 1962 are long out of print, and original copies are rare, leaving younger Burmese with few unbiased sources of information about their own history. 'It's getting harder and harder for people to get history books,' says one bookstore owner in Rangoon.

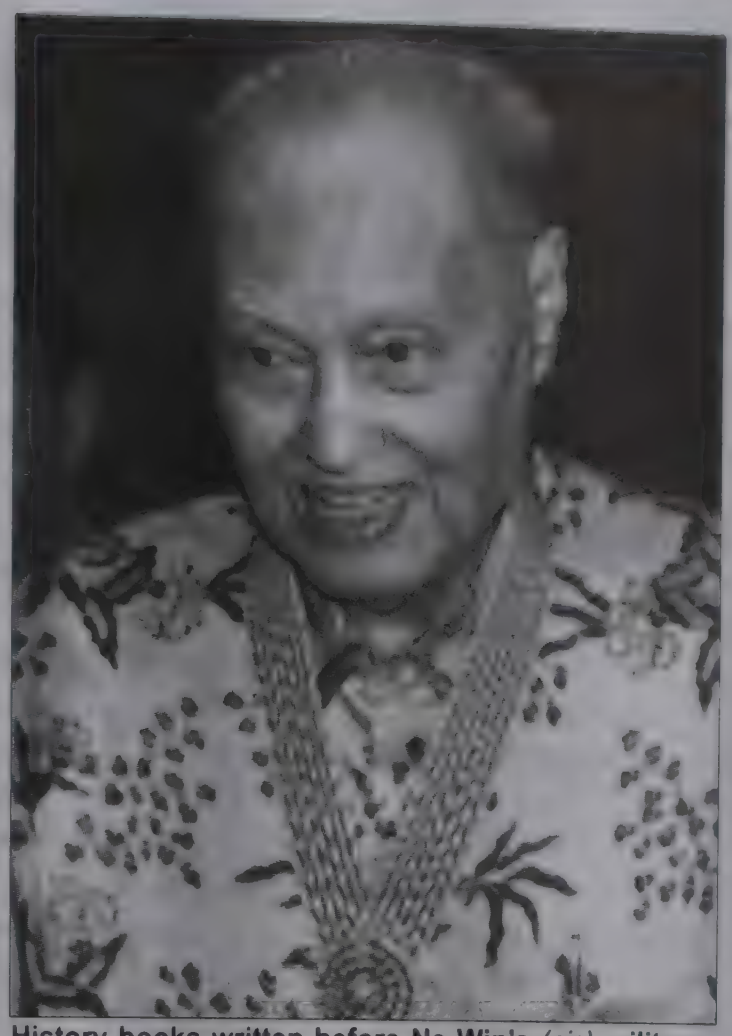
The suppression of works that don't fit the military's highly skewed version of the past has given rise to an oral tradition. Burmese in their late 20s and early 30s have been affected by the government's strict censorship and relentless propaganda drives, but have been able to turn to their parents and grandparents, who remember life in Burma before military rule, for answers concerning Burma's past. 'We don't know Burmese history from books,' says a 30-year-old woman in Rangoon, whose grandfather is an elected Member of Parliament. 'We know it from our fathers and grandfathers.'

These political sages, however, are a dying breed in Burma due to more than four decades of military rule. Many of them are now pushing into their 70s and 80s, and not everyone has had the opportunity to absorb their knowledge. History books that

are available to the public have been distorted by the government's line, and do not offer accurate accounts of pre- or post-independence Burma.

'The younger people can read no books about [the pro-democracy uprising in] 1988 or other political affairs in Burma,' says a 32-year-old underground democracy activist in Rangoon. 'The government only gives permission to print propaganda books for nationalism.'

Most bookstores in Rangoon now primarily sell English grammar books, self-help and religious books, and science fiction, as well as other genres that are not overtly associated with politics. A number of bookstore owners in Rangoon declined to be interviewed for this story for fear of a governmental backlash. 'You know the situation. I don't want to go to prison for nothing,' commented one Rangoon bookstore owner. 'I want to live quietly.'



History books written before Ne Win's *(pic)* military government seized power in 1962 are long out of print and original copies are rare, leaving younger Burmese with few unbiased sources of information about their own history.

Predicament of publishers

A number of publishing houses also operate in Rangoon, producing translated and pirated copies of English-language classics, including books by Ernest Hemingway and titles such as *The Scarlet Letter* and *Jonathan Livingston Seagull*. Getting these books printed is a daunting task, as they all must pass Burma's notoriously rigid Press Scrutiny Board (PSB).

The average time it takes for a book to pass the board is about six months, but some never receive the board's blessings, say publishing-house owners. The writings of Niccolo Machiavelli did not make it onto shelves, while Alexis de Tocqueville's *Democracy in America* took six long years to pass the PSB. The United States Information Service (USIS) in Rangoon, which translates and prints about two books a year, sent *Democracy* to the PSB.

It is, however, rare to have a book turned down, because of the strict self-censorship practised by publishing houses. They say the PSB does not usually reject books outright, but instead postpones the decision, sometimes indefinitely. 'I've never tried to publish political books,' says one publishing-house owner in Rangoon. 'If someone writes something sensitive we would not take it to the PSB.'

This self-censorship also extends to anything deemed likely to offend the generals' sense of propriety: Romantic scenes in novels stand little chance of making it into books that receive the green light.

'You have to think about every word you write,' remarks one journalist working for a business weekly, acknowledging the prevalence of self-censorship among journalists and writers. He adds that the current climate in Burma makes it difficult to nurture a new generation of writers. 'Young people now don't want to be writers. It's just too dangerous.'

Writers' struggle

But blacklisted writers have found ways to work around the government's iron-fisted censorship. 'We try our best to express in very discreet ways the life of the ordinary people,' says the prominent Rangoon-based writer. It's an uphill struggle, he says, 'but we continue to write as much as possible.'

Poets, writers and journalists have long played a major role in reminding younger generations of the issues at stake in Burma, including the need to confront their rulers. But in recent years, many well-respected writers and poets have chosen to leave the oppression of Burma behind for a life in exile. Older writers who have stayed say such decisions play right into the government's hand.

'They should be here suffering together with the people, fighting with the people,' argues the prominent writer, noting that writers can have very little impact on the political situation once they are outside the country. 'I will not survive another arrest, but if I go out it means I surrendered to the government,' he adds. 'I must be defiant towards this government.'

Despite the pressures facing writers in Burma today, nobody in Rangoon feels that the country's rich literary tradition is facing extinction. The resiliency of the Burmese spirit can be seen as writers continue to put pen to paper even in the knowledge that they face potential imprisonment and a lifetime of harassment.

As other mediums of communication continue to come under fierce government controls, writers in Rangoon note the sustained recalcitrance and never-say-die attitude of contemporary authors in Burma. They say this has allowed Burma's dynamic literary tradition to stay afloat in what might otherwise be doomed waters.

'Burma's literary tradition is still alive,' the prominent writer insists. 'The government totally controls movies and music, but this literary fear they cannot.' ◆

The above article first appeared in The Irrawaddy *(Vol. 11, No. 6, July 2003) and is reproduced with the kind permission of its editors*

The heroic and harrowing struggle of India's women tea workers

As the tea industry in India plunges into its worst crisis since the country's independence, it has wreaked a devastating human toll on the workers in the estates. And, as in so many situations, it is women workers who are bearing the brunt of this crisis. *Sindhu Menon* profiles the tragedy.

Work – work – work!
My labour never flags;
And what are its wages? A bed of straw,
A crust of bread – and rags.
That shatter'd roof — and this naked floor –
A table – a broken chair –
And a wall so blank, my shadow I thank
For sometimes falling there!

***The Song of the Shirt* by Thomas Hood**

HER name is No. 2325. The 46-year-old woman is a plucker in the Thangumalai estate in Injikkadu block in Idukki district of Kerala. No. 2325 is the check role number allotted to her showing the permanent nature of her work.

To her family she is Mary, whose one-room labour line home accommodates her husband Pazhani, sons Ayyappadas and Mohanadas, their wives Palthankam and Nagamma, and two-and-a-half-year-old granddaughter Sophiya. There was one more member in their family – a tiny tot – the darling daughter of Palthankam and Ayyappadas. She is no more. One day the child caught fever and the death was sudden. The company hospital was not functioning and she was taken to the nearby Cherukulam hospital. Since the case was an emergency doctors asked them to take her to a bigger hospital. Neither Mary nor Ayyappadas had money for that. The child died before they could raise money.

The story of Mary is not an isolated one. Similar is the plight of thousands of workers in the tea plantations in India, especially the plantations in Kerala, Tamil Nadu and West Bengal. Medium-sized plantations are being closed down one after another. In a majority of the cases, total abandonment of tea estates by managements follows closure, pushing the workers into utter poverty and misery. They struggle to make ends meet.

Women, the worst-hit

Women are always the worst-hit in any crisis. The case of women in tea plantations is no different. The permanent workers in almost all the tea gardens are women.

It is so because women are pluckers and plucking is an ongoing activity in almost the whole year. The men do the rest of the work and they are temporary workers. They get work only for a few months in a year.

Being the permanent wage earners, the women are put under tremendous pressure. They are the people who run the household. Ailing parents, school-going children, jobless husbands ... everything is their responsibility.

'My son has to be given 12 tablets a day, which cost Rs300 per week,' says Saraswathi, a permanent worker with MMJ plantations in Vagamon estate in the Idukki district. Aneesh, her 14-year-old son, has been bedridden for the last six months. His illness had started with fever and spells of sudden unconsciousness. 'He has to be fed, dressed and his needs have to be taken care of,' says Saraswathi. Her husband Nagayyan is jobless and is rarely able to pick up some manual work. Besides Aneesh, Saraswathi has three daughters and a son. MMJ plantations has become non-functional since October 2002. 'We were not paid our wages from July 2001. How can we survive like this especially with my ailing son?' asks Saraswathi with tears in her eyes.

Saraswathi's misery is not an exceptional case. Vasanthi's son Binu is a kidney patient. Her husband Karuppu Swami has gone to Tirunelvelli in search of a job, but did not come back. 'I go for manual work but nowadays work is so rare and it is very difficult to get one,' says Vasanthi.

'My polio-affected daughter has stopped going to school,' says Jessi, a plucker in the same estate. 'She has to be given medicines daily which cost Rs200. There is no money for food, then how can we give her medicines?' she questions. The child, without taking proper medicines, may fall down while walking to school. Out of this scare, Jessi has stopped sending her daughter to school. Jessi's husband David is jobless. Jessi goes for manual work to support her family.

Nature of work

Plucking tea leaves with a big cane basket on her back is the picture that comes to mind when one thinks about the woman in tea plantations. A plucker's work usually begins early in the morning. She stands all day, plucking tea leaves from the endless rows of tea bushes. Using her experienced fingers, she glides through the bushes as fast as she can since the quantity of tea leaves plucked decides her daily wage.

The situation has changed after the closure of the estates. In a majority of the gardens, there is no work, and even if there is, it lasts only for a few hours with a meagre wage. Women in tea plantations are now on the lookout for manual work.

The women workers are skilled in plucking. They have attained this skill through practice. But they are restricted only to the plucking job. The majority of them are not educated, nor have they developed skills in other income-earning activities. The closed enclaves of plantations do not provide them with the chance of getting alternative employment opportunities other than manual labour.

Apart from the work they do as pluckers and manual labourers, back at home they have hectic work. They have to cook food, fetch water and firewood. 'Cooking is an easy task now, because there is rarely anything to cook,' says Gomathy, a permanent worker in the closed MMJ plantation. 'Getting water is the most tedious work. One has to walk kilometres and wait relentlessly to get potable water,' says Vilasini, a permanent worker in the same plantation.

The plantations used to supply water to the worker's household from a common water tank. After the estates were closed the water supply stopped. Workers walk kilometres down the hill to collect water, mostly from contaminated sources. 'We could have operated the pump to collect water in the tank, but there is no electricity so the pumps cannot be operated,' says Kashi. Fifty-two-year-old Kashi is jobless. It is his wife who does manual work to support the family. Huge dues of electricity bills have forced the electricity department to cut the connection to the plantation. The majority of the labour lines do not have electricity. 'Our life was already in darkness and the cut in electricity has made it all the darker,' says Karuppamma, Kashi's wife. 'When there was work in the estate, we used to buy firewood. But now we go to the far-off woods to collect fuel,' says Suma. In most households, fetching water and collecting firewood are a woman's job.

'We live in dilapidated houses. We have been staying in our house for many years. But we are not the owners of this house,' says Kaniyamma. Plantation workers do not have any rights over the houses in which they live. Though they lived there for generations, they are the property of the planters. The planters are supposed to maintain these houses. But it is not done for a long period. 'During the rainy season it is as good as staying outside. Water pours heavily inside the house,' says Suma.

There are no bathrooms or sanitation facilities available in the majority of the labour lines. Some planters have constructed toilets a little away from open space. 'We have to go either in early morning or wait till it's dark,' says Hema shyly.

The crisis and the youngsters

The crisis in the tea industry has taken its toll also on the young girls in the families. Most of the girls have stopped going to school because they cannot afford it. Even if they decide to borrow books and continue schooling, it is not easy when the rattling sound of empty stomachs hurts them. Many a time, when the mother goes out for work, it is the responsibility of the daughter to take care of the entire household.

Many young girls go out of their state in search of jobs. Middlemen are using the opportunity to get labourers for work outside Kerala. 'The contractor came and took my daughter to Gujarat,' says Jagadamma, a worker in the Thangamullay estate. Padmini, Maya, Sara and Nabeesa also had similar stories to narrate. Women are taken to the shrimp processing units in Gujarat or to the Tiruppur Hosiery units. 'Unable to bear the situation there, many of them come back,' says Nabeesa. 'But many of them try to adjust, because they know nothing better awaits them in the plantations,' she adds. 'We cannot go outside, because the contractors prefer only young girls of 18 to 20 years,' says 48-year-old Jagadamma.

Struggling to survive

Health conditions of women in tea plantations shock an outsider. Fever, cough, backache and arthritis are quite common among women workers. 'But we cannot go to the company hospital,' says Padmini, a plucker in the Merchiston Estate. 'The doctor will be totally drunk in the evenings. Moreover, the injection he gives is the same for the cattle,' she adds. Since the Merchiston Estate is functioning, there is a doctor for the workers to blame, but in the majority of the cases, the hospitals are closed. The only option is private hospitals or government hospitals which are far away. Vijayakumari lost her child during delivery because there was no doctor to attend to her and the family did not have a penny to take her to the faraway hospital. 'How can we raise money for private hospitals in a situation where we do not have one square meal a day?' asks Vijayakumari.

Women in tea plantations continue living even after their husbands commit suicide or abandon them. She woefully watches her children starving and discontinuing studies. Painfully she witnesses her daughters being taken away by agents to far-off places to work in pathetic conditions. She even lives through the agony of selling her body to support the household. But, in spite of all these, suicides committed by women are rare. Except that of Velankanni (a 14-year-old who committed suicide when she was humiliated for not wearing school uniform), no other reports are available on suicides or suicide attempts of women. Does it prove the fact that women are mentally stronger and more courageous than men?

Women in tea gardens understand their role. They assume the responsibility of running the household. They never think of migrating to another area and leaving their family behind. Even when the husband abandons her, she struggles through her life supporting his ailing parents and the children. She has nowhere to go. The dilapidated one-room labour line to which she is not legally entitled is her world. She sees only her family and she struggles to support it. Though exploited, silently she bears all the burden. Only SHE can do it.◆

Sindhu Menon is special correspondent for Labour File, *a bimonthly journal of labour and economic affairs, from which the above article is reproduced (Vol.1, No.3, May-June 2003)*

The Alma Ata Declaration and the goal of 'Health for All'

Keeping the dream alive

Twenty-five years ago, an international conference held at Alma Ata (now known as Almaty) in the former Soviet Union proclaimed the goal of 'Health for All by the Year 2000'. In their path-breaking declaration, the 134 participant nations not only pledged to work towards meeting people's basic health needs through 'Primary Health Care' (PHC), but also stressed the need for a comprehensive health strategy that addresses the pervasive underlying social, economic and political causes of poor health. Explaining how this goal of 'Health for All' was subverted by powerful, mainly corporate forces, *David Werner* emphasises the urgent need to revive the struggle to realise the Alma Ata vision.

Health and quality of life have deteriorated for the poorest people, who have been increasingly marginalised by the dominant model of economic development.

IN 1978, a potential breakthrough in global health rights took place at an international conference organised by the World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) in Alma Ata, USSR (now Almaty in Kazakhstan). In the so-called 'Alma Ata Declaration', 134 countries subscribed to the goal of 'Health for All by the Year 2000'. They affirmed the World Health Organisation's broad definition of health as 'a state of complete physical, mental and social well being'.

To approach Health for All, the world's nations, together with WHO, UNICEF and other major funding organisations, pledged to work towards meeting people's basic health needs through a comprehensive, remarkably progressive approach called 'Primary Health Care' (PHC). Its principles and methods were garnered from the barefoot doctors methodology in China and from experiences of small struggling community-based health programmes in the Philippines, Latin America and elsewhere. The link of many of these enabling initiatives to social transformation movements helps explain why the concepts underlying PHC have been both praised and criticised for being 'revolutionary'.

The social and political implications of the Alma Ata Declaration and PHC

Perhaps the most politically charged aspect of PHC as proposed at Alma Ata was its all-inclusive equity-oriented approach. The Declaration stresses the need for a comprehensive strategy that not only provides basic health services for all, but also addresses the pervasive underlying social, economic and political causes of poor health. It links health to a strongly participatory strategy that has since become known as 'people-centred development'. Support documents for the Declaration state that:

'The purpose of development is to permit people to lead economically productive and socially satisfying lives....

'Since Primary Health Care is the key to attaining an acceptable level of health by all, it will help people to contribute to their own social and economic development. It follows that Primary Health Care should be part of the overall development of the society.'

These documents not only emphasise that Health for All will require structural change in the direction of greater socioeconomic equity, but they anticipate the opposition to this revolutionary strategy within the existing power structure:

'It can be seen that the proper application of Primary Health Care will have far-reaching consequences, not only throughout the health sector but also for other social and economic sectors at the community level. Moreover, it will greatly influence community organisation in general. Resistance to such change is only to be expected.'

To overcome such opposition, and to give people a stronger voice in the decisions that determine their well-being, the Declaration calls for strong popular participation.

Resistance to Primary Health Care

Sadly, the year 2000 has come and gone, and the goal of Health for All in some ways seems farther than ever from being reached. 2003, the 25th anniversary of the Alma Ata Declaration, provides an occasion to analyse what went wrong and to strategise what action is needed to advance in earnest toward Health for All.

While a few health indicators have improved modestly since 1978, for billions of the poorest people, health and quality of life have actually deteriorated. This is partly because of the decreasing access to costly health services. But it is also because the world's neediest people have been increasingly marginalised by the dominant model of economic development.

In many countries, growing groups of activists have begun to protest the unhealthy and unaccountable adjustment policies and trade agreements of the international financial institutions and the World Trade Organisation.

As foreseen, the comprehensive, social-change-fostering concept of Primary Health Care has been resisted by the powerful decision-makers at national and international levels. Historically, from the late 1970s to the present, this resistance can be looked at in terms of four interrelated attacks.

Four assaults on Primary Health Care

1. Selective Primary Health Care – introduced in the late 1970s. The comprehensive approach to PHC, with its emphasis on equity and its call for a model of socioeconomic development conducive to Health for All, was quickly undermined by experts at Johns Hopkins School of Public Health, who claimed it was too complex and too costly. Instead, they advocated Selective Primary Health Care, focusing on a few 'cost-effective', top-down technological fixes 'targeting' high-risk groups. UNICEF quickly adopted this selective approach, which in practice focused mainly on oral rehydration therapy and immunisation. While these so-called 'twin engines' of the Child Survival Revolution did succeed in somewhat reducing child mortality, they did discouragingly little to reduce poverty and hunger, or improve children's quality of life. For this, a comprehensive approach is needed that confronts the root causes.

2. Structural adjustment programmes – introduced in the early 1980s. In the 1960s and 1970s the governments and banks of the North loaned a vast amount of money to poor countries in the South to promote a model of development that replaced rural peasants and urban workers with fossil-fuel-consuming machines. This brought large profits for foreign investors and massive joblessness and increased poverty for the many. When poor countries began to default on their loans, the World Bank and IMF stepped in with bailout loans. These were tied to structural adjustment programmes (SAPs). These required debt-burdened countries to reduce public spending, including that for health and education, to free up money to keep servicing their debts to the Northern banks. Whereas the Alma Ata Declaration has called for increased government spending on health, SAPs pressured the poor countries to reduce and privatise public services. 'Cost recovery' schemes (with introduction of 'user fees') placed health services out of reach of many poor families. As a result, in some countries child mortality, sexually transmitted diseases and rates of tuberculosis drastically increased. In terms of the pursuit of Health for All, this was a giant step backwards.

3. World Bank's takeover of Third World health policy – in the 1990s. Prior to the 1990s the World Bank invested almost nothing in health. But in the 1990s the Bank discovered that *poor health reduces worker productivity*, thus impeding economic growth (of big industry). So over a few years the Bank increased its investment in health to where, by the late 1990s, it was spending on the health sector three times as much as the entire WHO budget. In terms of guiding Third World health policy, this has relegated WHO to second place, not only because of the Bank's greater spending, but because it can tie its health reform 'recommendations' to urgently needed (or strongly desired) loans. In its 1993 World Development Report, titled *Investing in Health*, the Bank spells out its health policy recommendations. These are essentially a free-market version of selective health care. Governments should determine which health interventions to support according to their cost-effectiveness in terms of keeping workers on the job. Persons who cannot contribute to the economy – such as elderly and severely disabled persons – are ranked as of lower 'value' and therefore merit little or no public assistance. Another dehumanising step backwards in terms of Health for All!

4. The McDonaldisation of WHO and UNICEF – in the 2000s. Partly because of shortage of funds, and partly because of the influence of corporate gifts, in the last few years both WHO and UNICEF have entered into an increasing number of 'partnerships' with transnational corporations, including drug and junk-food companies. An example is UNICEF's recent plan with fast-food giant, McDonald's. In its promotion McDonald's will include UNICEF public health messages and boost

sales of Big Macs by announcing that part of the purchase price goes to UNICEF. In Nigeria UNICEF has made a similar agreement with Coca-Cola. Such compromises with industries that promote products conducive to obesity, heart diseases, stroke and diabetes are not conducive for Health for All. Even if these costly foods have improved nutritional content, they are still a threat to health. If poor families spend their limited money to buy them rather than cheaper staple foods (like maize and beans), the end result is more undernourished children.

The Alma Ata Declaration called for combating the underlying social and structural causes of poor health. To the contrary, these new partnerships by UNICEF and WHO with transnational corporations further entrench and legitimise the forces that put healthy profits before people.

Corporate rule as a threat to world health

All of these four 'assaults' on Primary Health Care as conceived in Alma Ata are manifestations of the dominant 'free market' paradigm of development. As undemocratic as it is unsustainable, it promotes economic growth of the rich regardless of the human and environmental cost.

That the current model of economic development driven by a deregulated market system is dangerous to health, is evident when we consider the impact of its biggest industries. In economic terms, the world's three biggest industries are: 1) military/arms, 2) illicit drugs, and 3) oil. All three of these colossal industries pose far-reaching dangers to the sustainable well-being of humanity and the planet. Yet because the money proffered by these industries strongly influences who gets elected to public office, it undermines the democratic process. It impedes humanity from taking decisive steps to rein in the biggest emerging global threats to human health such as global warming, the pending Third World War, the deepening poverty of one-third of humanity, the global pandemic of crime and violence and the disempowerment that leads to terrorism. Rather than confront the underlying causes of these globalised threats to health, the world's chieftains – with their ties to the arms, drugs and oil industries – use the current crises as a pretext to systematically roll back civil rights and public services.

In sum, far from progressing toward Health for All, humanity may currently be on a collision course toward Health for No One. It is time to collectively wake up and change course.

How can we get back on the road to Health for All?

Some say Primary Health Care has been tried and failed. But in truth, it has never been tried – certainly not on a large scale, in the comprehensive form advocated in Alma Ata.

It is even clearer today than 25 years ago, that *the main determinants of health are social, economic and political.* Resources exist to provide adequate food and basic health services to everyone. A small fraction of what is spent on arms could provide the necessary health care and food for everyone who now lacks them.

What is necessary is the political will. The Alma Ata Declaration insisted on putting health – or rather the decisions that determine health – back in the hands of people and communities. If the world's people had a clear understanding of the dangers to their health that are looming, and the way the world's top decision-makers have sold out to the interests of big money, they might very well take organised action. They would join the growing movements for election finance reforms, so that leaders could be elected who put human need before corporate greed. They would begin to participate more fully in the decisions that affect their health and their lives – and the well-being of generations to come.

There are positive signs that such an awakening is taking place. Examples include:

- In many countries, growing groups of activists have begun to protest the unhealthy and unaccountable adjustment policies and trade agreements of the international financial institutions and the World Trade Organisation.
- AIDS activists have partially succeeded in demanding the people's right to low-cost generic versions of patent medicines.
- Watchdog groups are having an impact. For example, a joint letter to UNICEF from non-governmental organisations criticising UNICEF for partnering with McDonald's has helped UNICEF to reconsider its questionable liaisons with fast-food giants and other industries.
- Citizens groups in the US have pressurised Congress to regulate the influence of corporate 'soft money' in public elections, opening the way to more democratic and healthy policies.
- Protests around the world are exposing the oil interests, weapons profits and political expediency that hide behind the attack on Iraq.

Also highly important, especially at the global level, are the *international coalitions that are forming around concerns of sustainable health and development,* which bring together grassroots movements and watchdog groups from many countries and from many sectors. The global forces behind the dominant inequitable paradigm of development have grown so powerful and well coordinated that only through coordinated global movements from the grassroots is there a likelihood of getting back on the path toward sustainable Health for All.

In the health sector (but reaching out beyond it to every sector affecting health) two important coalitions are the International People's Health Council and the People's Health Movement.

In sum, the concept of Primary Health Care as advocated in the Alma Ata Declaration – with its emphasis on equity, strong participation and addressing the underlying social, economic and political causes of poor health – is as valid today as it was 25 years ago. And even more urgently needed! ◆

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Reflections on the 25th anniversary of the Alma Ata Declaration

The vision that was endorsed at Alma Ata was the outcome of the power equations that had been taking shape within and between countries during the preceding years. Consequently, when the power equation swung massively in favour of the rich countries, the poor were made to 'forget' the visionary goals set out in the solemn declarations made by them earlier.

Debabar Banerji

The inaugural meeting of the World Social Forum was held in Brazil in 2001. Concern for the health of the poor is an important component of the activities of the WSF.

THE Alma Ata Declaration on Primary Health Care of 1978[1], which was endorsed by all the countries of the world, marks a major watershed in the concepts and practice of public health as a scientific discipline. Expectedly, the vision that was endorsed at Alma Ata is the outcome of the power equations that had been taking shape within and between countries during the preceding years. India's vision in 1938 of entrusting 'people's health in people's hands'[2] during the anti-colonial struggle and the emergence in the course of the famous Long March of the Chinese vision of developing rural health cooperatives, with the 'Barefoot Doctor' as the centrepiece[3], are instances of socio-political conditions within individual countries which had earlier inspired such pathbreaking endogenous thinking in public health. Incidentally, the two countries contained an overwhelming majority of the unserved and underserved people of the world.

Equally expectedly, when the power equation massively swung in favour of a few rich countries of the world, the poor were made to 'forget' the idealism contained in the solemn declarations made by them earlier. Significantly, the changes that have occurred in China during the past two decades have virtually wiped out the rural health cooperatives, leaving vast masses of the poor to their fate. It is a profound irony that fearing a backlash from the poorest of the poor, the Chinese authorities have sought assistance from the World Bank to revive health cooperatives for this limited population. India too suffered a similar fate though, presumably because of some degree of commitment to democracy, the damage to the endogenously developed public health system was not as sweeping as in the case of China.

Highlights of the Alma Ata Declaration

1. Health is considered as a fundamental right. The state has the responsibility to enforce this right.

2. Instead of starting with various types of health technologies and considering people as almost passive recipients for them, the Declaration sought to reverse the relationship by considering people as the prime movers for shaping their health services. It sought to strengthen the capacity of the people to cope with their health problems, which they have developed through the ages.

3. It also visualised a wider approach to health by addressing such intersectoral areas as ensuring adequate supply of potable water, environmental sanitation, nutritive food and housing.

4. It called for social control of the health services that are meant to strengthen people's coping capacity.

5. It considered health as an integral whole, including promotive, preventive, curative and rehabilitative components. Any concept of 'selective care' was considered antithetical to the concept of Primary Health Care (PHC).

6. Health services ought to cover the entire population, including the underserved and the unserved.

7. Those aspects of traditional systems of medicine which are proven to be efficacious or which are the only ones accessible to the people ought to be used in providing PHC.

8. The choice of Western medi-

cal technology should conform to the cultural, social, economic and epidemiological conditions. Particular care is to be taken to use only essential drugs in generic forms. Ivan Illich, in his book, *Limits to Medicine,*[4] had stated (perhaps a little exaggeratedly) how even in the rich countries 'medicine had become a threat to the people' through what he called medicalisation of life, mystification of medicine, professionalisation of medicine, increasing incidence of medical, social and cultural iatrogenesses, among others. Later, studying the rapid market-driven technological developments, he pointed out the powerful trends in making practice of medicine as a bigger organisation in the form of 'conglomerates' (conglomertisation) (personal communication). More recently, noting that doctors in the US have lost so much say in the market-driven medical practice, John McKinley and Lisa Marceau[5] have pronounced the 'end of the golden age of doctoring'. The PHC approach ensures that such anomalies do not creep into the practice of medicine.

It may be underlined that PHC is a PROCESS. Even the most rudimentary forms of home remedies or use of a village bonesetter could form the starting point of development of PHC. Mahatma Gandhi had recognised such limitations of the deprived sections of the population. In his programme of 'Constructive Work', he had included very simple but effective methods of rural sanitation and use of naturopathy to protect and promote the health of rural populations in India.

Evolution of the Alma Ata Declaration

Overthrow of colonial rule and rising aspirations of the liberated people, the emergence of democratic forms of government in some of the newly independent countries, initiation of the Cold War and formation of the Non-Aligned Movement (NAM), have been some of the major factors which contributed to the creation of conditions which tended to compel the new rulers in these countries and the newly formed international organisations to pay attention to some of the urgent problems facing them. International organisations such as WHO and UNICEFcame forward to contribute to improvement of the health status of the people in the needy countries. The availability of so-called silver bullets tempted these organisations to launch special 'vertical' or 'categorical' programmes against some of the major scourges such as malaria (DDT and synthetic antimalarials), tuberculosis (BCG vaccination), leprosy (dapsone), filaraisis (hetrazan) and trachoma (aureomycin). It took them quite some time to realise that these vertical programmes were not only very expensive but they also failed to provide the expected results. These programmes also hindered the growth of integrated health services. This impelled them to advocate integration of health services, then promotion of basic health services, then going to individual countries to promote country health planning and later, country health programming. In the mid-1970s WHO got together with the World Bank to link activities with poverty-reduction programmes. A World Health Assembly resolution in 1977[6] aiming for a programme of Health for All through PHC by 2000 (HFA-2000 PHC) set the stage for the calling of the International Conference on PHC at Alma Ata in 1978.

The Alma Ata Declaration visualised a wider approach to health by addressing such intersectoral areas as ensuring adequate supply of potable water, environmental sanitation, nutritive food and housing.

Post-Alma Ata scenario

There were exponential changes in the power equations between and within the countries of the world from the early 1980s. Events such as the end of the Cold War, enfeebling of the NAM, and rapidly increasing influence of the Bretton Woods institutions, brought about a sea change in the national and international commitment to HFA-2000 PHC. As early as in 1979, the rich countries launched what they called Selective Primary Health Care (SPHC) on the basis of virtually no scientific data[7]. Apparently to underline the power of the syndicate of the rich countries and the ruling elite of the poor countries, the two sponsors of the Alma Ata Conference – WHO and UNICEF – were made to toe the line laid down by it. An active effort was made to thoroughly set aside the ideas generated by the Declaration to make 'space' for a patently unscientific market-driven agenda for health for the poor countries of the world. It was a massive assault on the intellect of public health workers; those who conformed to the laid-down line were rewarded and those who dared to disagree were simply ostracised[8]. Public health was once again put on its head, with people once again becoming hapless recipients of pre-fabricated, market-driven, technocentric and scientifically very questionable programmes imposed by international agencies.

The International Monetary Fund demanded and got compliance with fundamental structural adjustments in the economies of dependent countries. Their impact on health and health services for the poor was devastating. It meant drastic cuts on the already pathetically inadequate public-supported health budgets. They created space for rapid growth of the private sector in medical care. There was also pressure for cost-recovery

for services provided by some of the publicly funded health agencies. Pressure to 'globalise' poor countries on grossly unequal and iniquitous terms turned them into bonded labourers in the global village dominated by the sation (WTO) added its bit by forcing patent laws in many poor countries to subserve the interests of the drug-manufacturing giants.

Substituting scientific reasoning and well-researched conclusions for use of brute force, the syndicate let loose a virtual torrent of international health initiatives on the poor countries. As admitted even by the government of India in its Health Policy pronouncement of 2002, these initiatives have not only been highly expensive, but they have also further decimated the general health services. Worse still, they have fallen far short of the objective for which they were launched. The Universal Immunisation Programme, the Global Programme for AIDS, the Global Tuberculosis Control Programme, the Pulse Polio Programme for polio eradication and the Leprosy 'Elimination' Programme are examples of the major initiatives taken during the last decade and a half. Despite pouring in billions of dollars, the syndicate-inspired initiatives are becoming a menace to the health and health services of the world's poor[9].

In what has turned out to be a desperate bid to regain some credibility for itself, WHO managed to interest some of the top economists of the world to join a Commission on Macroeconomics and Health (CMH) to study the macroeconomics of health services for the poor and make its recommendations[10]. Interestingly, the membership of the Commission included the former finance minister of India and the present leader of the opposition in the upper house of the parliament, Dr Manmohan Singh, and an advisor to the president of the Tokyo-Mitsubishi Bank. The CMH Report is being analysed at some length as it provides documentary evidence of the poor level of scholarship of the members and the secretariat[11]. The Report of the Commission is ahistorical, apolitical and atheoretical. It has adopted a selective approach to conform to a preconceived ideology. It has ignored the earlier work done in this field. It has pointedly ignored such major developments in the area of health services as the Alma Ata Declaration. This attitude of developing massive blindspots in their vision has brought the scholastic quality of the work to almost rockbottom level. It is not surprising that the CMH has developed tunnel vision in making recommendations on so important a subject. Their emphatic recommendation for perpetuating vertical programmes against major communicable diseases like tuberculosis, AIDS and malaria on the grounds that vertical programmes have proved to be convenient in a number of ways to the 'donors' betrays the real motivations for undertaking such an almost openly ideology-driven agenda. This is a serious danger signal for scholars of the world who would like to have a scientific attitude towards programme formulations for the poor to get maximum returns from limited resources.

What is to be done?

The struggle for HFA-2000 PHC has to be part of the long and very formidable struggle for a just world order. The focus of the struggle has to be in individual countries. Like-minded groups from individual countries will have to join together to form a global movement. Some first, very tentative steps have already been taken:

1. After having their own National Health Assemblies, delegates from a large number of countries got together at Dhaka in December 2000 to form the People's Health Assembly to adopt a People's Health Charter. To carry forward the struggle for health it has formed the People's Health Movement, which has set up branches at continental, national and sub-national levels.

2. The inaugural meeting of a World Social Forum (WSF) was held in Brazil in 2001. Concern for the health of the poor is an important component of the activities of the WSF. As a prelude to the third WSF, a meeting of the European Social Forum which was attended by 200,000 or 300,000 delegates was held at Florence in November. An Asian Social Forum was held at Hyderabad during 2-7 January 2003.

3. A great deal of credit is due to anti-capitalist activists for organising sustained demonstrations against extremely heavy odds to register their protest at major conclaves of rich countries in different parts of the world – starting from Seattle and then covering cities like Gothenburg, Barcelona, Davos, Calgary, Doha, Genoa and Melbourne.

4. Another line of struggle will be to use scientific critiques as a weapon to resist imposition of the syndicate's agenda on the poor and to offer an alternative one[8]. To 'remind' them about the Alma Ata Declaration is one such example. ◆

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Primary Health Care since Alma Ata: Proposals for revitalisation

It is clear that progress towards the Alma Ata goal of Health for All has been uneven. While the global Primary Health Care initiative has been successful in disseminating a number of effective technologies and programmes, its intersectoral focus and social mobilising roles – which are the keys to its sustainability – have been neglected, in both the discourse and implementation.

David Sanders

Primary Health Care – focus and implications

THE strategy of Primary Health Care (PHC), advanced by WHO and UNICEF, was declared by 134 states at Alma Ata in 1978 to be the means to achieve Health for All (HFA) by the Year 2000[1]. PHC had strong sociopolitical implications. It explicitly outlined a strategy which would respond more equitably, appropriately and effectively to basic health care needs and also address the underlying social, economic and political causes of poor health. Certain principles were to underpin PHC, namely, universal accessibility and coverage on the basis of need; comprehensive care with the emphasis on disease prevention and health promotion; community and individual involvement and self-reliance; intersectoral action for health; and appropriate technology and cost-effectiveness in relation to the available resources[2].

The implications of PHC were recognised, even at the time of the Alma Ata Declaration, to be far-reaching if the strategy were to be properly applied: the principles would have to be translated into changes not merely in the health sector but also in other social and economic sectors as well as in community structures and processes.

A malaria patient. The past two decades have witnessed the alarming resurgence and spread of old communicable diseases once thought to be well controlled, such as malaria.

Mixed progress in global health

Over the past 50 years and even over the last 25, considerable gains in health status have been achieved. Globally, life expectancy at birth has increased from 46 years in the 1950s to approximately 65 years in 1995[3] and the total number of young children dying has been restricted to approximately 12 million instead of a projected 17.5 million[4]. Substantial control of certain communicable diseases, notably poliomyelitis, diphtheria, measles, onchocerciasis (river blindness) and dracunculiasis (Guinea worm), has been achieved through immunisation and specific disease control programmes[5], and cardiovascular diseases have decreased in males in industrialised countries, partly because of a decline in smoking[6].

Despite these gains, however, there have been setbacks. Although in aggregate terms child mortality and life expectancy have improved in all regions of the world,[7] disaggregation of these data reveals that the gap in mortality rates between rich and poor between and within countries has widened significantly for certain age groups. Furthermore, in a number of sub-Saharan African (SSA) countries, infant mortality rates (IMR) actually increased in the 1980s under the impact of economic recession, structural adjustment, drought, wars and civil unrest and HIV/AIDS[8].

The past two decades have also witnessed the alarming resurgence and spread of old communicable diseases once thought to be well controlled e.g. cholera, tuberculosis, malaria, yellow fever, trypanosomiasis, dengue etc., while new epidemics, notably HIV/AIDS, threaten health gains in many, mostly developing, coun-

tries. Many developing countries are also experiencing a double disease burden, with cardiovascular diseases, cancers, diabetes, other chronic conditions and violent trauma replacing communicable diseases in some social groups, but in others co-existing with them.

Progress and reversals in implementation of PHC

Implementation of PHC has been rendered difficult as a result of misinterpretation and of changed context. Misinterpretation was rooted even in the Alma Ata document wherein PHC was defined as both a 'level of care' and an 'approach': these two different meanings have persisted and perpetuated divergent perceptions and approaches. Thus, in some developed countries and sectors PHC often has been interpreted as primary medical care provided by general doctors, and in developing countries as a cheap, low-technology option for poor people[9]. Even in countries which embraced PHC as the key to Health For All, conservative changes in the 1980s in the political and economic context bedevilled its implementation.

There have, however, been significant successes, especially in the 1980s, in implementing PHC, although mainly in the development and extension of particular health programmes, rather than in the facilitation of social development through the promotion of an intersectoral approach and community participation[10].

The greatest successes in PHC implementation in developing countries have been in respect of its more medically-related elements. For example, in the 1980s coverage of growing children with the six basic vaccinations increased dramatically from below 40% worldwide to over 70% by 1990. Similarly, access to oral rehydration therapy (ORT) for treatment of diarrhoea expanded over the same decade, as did improved access to water and sanitation in some parts of the world.

However, the control of both communicable and non-communicable diseases has proved elusive. In particular HIV/AIDS, TB and malaria are affecting rapidly increasing numbers of (especially poor) people worldwide. HIV, which now affects over 40 million people, three-quarters of them in sub-Saharan Africa, has led to declines in life expectancy in a number of countries. The control of these three diseases and of the chronic diseases, which affect increasingly large numbers of poor people, is complex and clearly requires improved living and working conditions, well-functioning health systems and strong intersectoral coordination and community mobilisation.

However, it is clear that health systems in most developing countries, and especially in SSA, have deteriorated in the past 10 to 15 years. This is most starkly illustrated by the decline in vaccination coverage of young children to well below 1990 levels, despite intensive polio vaccination campaigns and the regular measles vaccination campaigns.

Progress and setbacks in implementing the programme elements

Since the early 1980s there has been considerable progress in the coverage of populations with the essential elements (or programmes) of health care.

There has been some progress in improving access to **water supply and sanitation**, although great differences continue to exist between and within countries and social groups.

Child health care provision has increased greatly over the past two decades with the vigorous promotion of certain selected 'Child Survival' technologies: growth monitoring, oral rehydration therapy, breastfeeding and immunisation (GOBI). Of these, **immunisation** has shown the most dramatic improvement, with global coverage of children under one year increasing from 20%[11] in 1980 to 80% by 1990. This impressive progress notwithstanding, there remain areas for concern. These include stagnation in immunisation coverage between 1990 and 1993, and declines in coverage in most regions of the world by 1999[12], with the most difficult-to-reach population being the group experiencing a disproportionate burden of vaccine preventable disease; the reappearance of diphtheria in the Newly Independent States as a result of vaccine shortage and poor programme management[13]; and less than 50% coverage of pregnant women with tetanus toxoid vaccine.

The **nutrition situation** in developing countries remains serious, with almost 200 million young children being malnourished and almost a billion people receiving less than their basic daily requirements of energy and protein.

Acute respiratory infection (ARI) and **diarrhoeal diseases** are the two leading causes of death in children under five globally, with the overwhelming majority of cases occurring in developing countries. Standardised management guidelines have substantially reduced fatality rates but the impact has been less than anticipated due to interrupted and inaccessible supplies of oral rehydration solution, improper usage and an unabated high incidence of diarrhoea as a result of minimally improved environmental hygiene and persisting malnutrition[14]. More recently, given that 70% of young child deaths can be attributed to diarrhoea, pneumonia, measles, malaria and malnutrition, clinical guidelines for the **integrated management of childhood illness** (IMCI) have been developed[15].

Maternal health has received far less attention than child health, with levels of **maternal mortality and morbidity** from largely preventable causes in developing (particularly the least developed) countries remaining unacceptably high.

Control of the three most common and serious **communicable diseases**, tuberculosis, HIV/AIDS and malaria, has proved elusive. TB is now responsible for over 25% of avoidable adult deaths worldwide[16], with 95% of cases occurring in developing countries; its prevalence has risen sharply over the past decade-and-a-half as a result of HIV infection, deteriorating socio-economic conditions and poor quality control

programmes, together with the emergence of multi-drug-resistant organisms. The HIV epidemic has spread rapidly to affect over 40 million individuals, mostly in developing countries, especially sub-Saharan Africa, and involves predominantly young adults and children born to HIV-infected women. In some SSA countries gains in survival achieved over the past few decades are being reversed by the effects of HIV infection. The malaria situation remains serious, particularly in SSA where it imposes high mortality and morbidity levels and a major economic burden from lost productivity and escalating treatment costs as antimalarial drug resistance spreads.

Current strategies for control of these diseases are remarkably similar. TB control programmes rely heavily on directly observed short-course chemotherapy (DOTS); HIV control has focused on targeted educational activities and early treatment of STDs; and malaria control on early diagnosis and treatment and selected preventive measures – particularly insecticide treatment of bednets – as part of WHO's new 'roll back malaria' initiative. While the technologies employed in all three cases have evolved considerably in the past decade, sustained success in combating these diseases is unlikely without well-developed health systems, improved living and working environments secured through anti-poverty measures and coordination with health-related economic and social sectors, and active participation by communities in such control campaigns.

The major non-communicable diseases such as cardiovascular disease, cancers, diabetes and mental illness together with violence and injuries contribute significantly to the burden of disease in developed and, increasingly, in developing countries. Their complex epidemiology requires better clinical management and lifestyle modification but also actions involving a range of sectors and tied to more fundamental measures, for sustainable impact.

Statement on PHC – by People's Health Movement in collaboration with Churches Action for Health at the World Health Assembly in May 2003

THE following is an edited version of the People's Health Movement's response to International Conference on Primary Health Care, Alma Ata: Twenty-fifth anniversary, *a report by the WHO Secretariat.*

PHM believes that WHO has progressively withdrawn from the true spirit of the Alma Ata vision of PHC. Increasingly selective and disease-focused, donor-driven initiatives have been supported at the expense of people-centred comprehensive approaches that both provide basic care and tackle the underlying causes of disease and seek to promote positive health. PHM calls on WHO to return to the original vision.

The document states that PHC is about the health of the disadvantaged but ignores the following:

• Inequities are increasing – the gap between developing and developed countries is growing.

• Inequities within many countries are also increasing, despite, in some cases, overall increases in life expectancy.

• In many African countries life expectancy is declining rapidly (HIV/AIDS has offered new challenges for PHC and this is not acknowledged in the resolution).

• The absolute number of people living in poverty has increased worldwide and sharply in some regions.

The analysis of the People's Health Movement indicates that the major cause of the growing inequities is the increasingly unipolar world economic order and its impact on the lives and livelihoods of people around the world. Neither the global report nor the resolutions acknowledge this impact. Until the world is characterised by FAIR economic and trade relationships, Health for All cannot be achieved.

• Greater pluralism in funding has meant less access for the poor to health services as a result of:

• Introduction of user fees

• Privatisation of health services

• Privatisation and contracting out of services provided within the public health system

The imposition of health sector reform with its dominant focus on efficiency and cost effectiveness has further resulted in:

• Decentralisation without adequate resources leading to a decline in health system capacity as evidenced inter-alia by sharp reductions in basic vaccination coverage globally since 1990.

• Lack of investment in publicly funded primary health care systems and no attention to leadership and management development for PHC.

Although many countries see PHC as a policy cornerstone and a framework for health care delivery, this commitment has not been reflected in a reallocation of resources away from the hospital sector. The PHM considers that States should be responsible for the funding, organisation and delivery of PHC. Many NGOs provide services to marginalised communities in the absence of government-funded services. PHM believes that governments should support public funding for PHC, adapted to local need and based on comprehensive models stressing community participation and encouraging community development, social action, popular education and direct service delivery.

PHM requests Member States:

• To ensure the development of PHC is adequately resourced through a targeted reallocation of resources to non-hospital care and local community-based health initiatives involving other sectors. Member States should demonstrate this by setting specific targets to allocate extra funding to community-based services and monitor the impact on reducing health inequalities.

• To accelerate long-term improvement of human resource capability through increasing resources and activities for capacity for implementing comprehensive PHC systems (rather than selective PHC focused on donor-

Thus it is that the understanding and application of **health education**, one of the elements of PHC, has evolved significantly from a preoccupation with individual behaviour change towards a broader set of activities termed 'health promotion', which incorporates individual as well as social action[17].

The final programme element to consider is **essential drugs**. While access to essential drugs is much improved, approximately two billion people still do not have access to the most important drugs and vaccines[18], and at the same time drugs bills for most countries and their health services are massive, and problems of wastage and irrational drug use remain.

Progress and setbacks in health systems development

In the 1980s there was little recognition of the importance of health systems and almost a decade after Alma Ata the activities of various programmes and institutions continued largely to be piece-meal, poorly coordinated, and unevenly distributed. As a result, the concept of the district health system (DHS) was born[19].

The DHS has been promoted as the unit within which the implementation of primary health care by the health and health-related sectors (public and private), and communities can be best organised and coordinated. District management structures were envisaged as a focus for decentralisation of political power and resources, increased democracy and equity.

Despite efforts over the past 10 years or more, there are few countries where district health systems are functioning fully and effectively[20]. There are a number of linked reasons for this: these are related ultimately to the lack of capacity – human and financial – of health services at local levels and an unfavourable broader political and economic environment.

In short, health systems development has been uneven and constrained by fiscal austerity, which has in many countries adversely affected the quantity and quality of human and material resources and logistical support. Efficiency imperatives which have spurred health sector reform and alternative financing approaches in both industrialised and developing countries, have sometimes generated significant innovation but have also often aggravated dysfunctionality and inequity, particularly in developing country health systems[21].

Despite the fact that the successful functioning of health systems depends critically on adequate numbers and competence of personnel who account, in most countries, for approximately 70% of recurrent expenditure on health services, this important area has received inadequate attention in the HFA initiative.

Since 1978 there has been a considerable expansion in health human resources particularly at the 'auxiliary' or 'paramedical' level in developing countries and, especially in the immediate post-Alma Ata period, in the community health worker cadre. Despite this, many poor countries, especially the least developed, have too few health workers to provide universal coverage and in all countries there continues to be significant maldistribution of, and imbalances between, various types of health workers.

Teamwork is, on the whole, poorly developed[22] and the motivation and competencies of health personnel require considerable strengthen-

driven disease-specific initiatives) within both government and non-government services.

• To enhance the potential of PHC to tackle the rising burden of chronic conditions through health promotion including illness prevention and disease management but not at the expense of comprehensive initiatives to tackle the increasing burden imposed particularly on the poor by communicable diseases including HIV/AIDS, TB, Malaria.

• To create mechanism, including the allocation of resources and training, for the active involvement of communities and NGOs for PHC.

• To support research in order to identify effective methods for strengthening PHC and linking it to overall improvement of the health system and to the reduction of health inequalities.

PHM requests the Director-General:

• To re-affirm the principles of the comprehensive PHC approach as enriched in Alma Ata into the activities of all programmes.

• To review the Millennium Development Goals and the recommendations of the Commission on Macroeconomics and Health in terms of their compatibility with the principles of PHC as enshrined in Alma Ata, especially health as a human right rather than primarily as an input to economic development.

• To evaluate different approaches to PHC by both government and NGOs and to identify and disseminate information on best practices to government and community actors in PHC in order to improve implementation.

• To instruct WHO personnel in Geneva, Regional and Country Officers to engage more proactively with both government and NGO PHC initiatives to determine the capacities they require in order to meet new demographic, epidemiological and socio-economic challenges.

• To continue to provide support to countries for improving the quality and quantity of health personnel in order to enhance access to comprehensive services, especially for the poor.

• To lay renewed emphasis on support for the implementation of locally determined models of PHC that are flexible and adaptable.

• To organise a series of meetings on future strategic directions for PHC that capture grassroots experiences of PHC and involve the People's Health Movement. ◆

The People's Health Movement is an international coalition of grassroots organisations dedicated to re-establishing health and equitable development as top priorities in policy-making, with comprehensive primary health care as the strategy to achieve these priorities. Towards this end, the PHM and the International People's Health Council have initiated the Million Signature Campaign <www.themillionsignaturecampaign.org> for individuals and organisations to demand 'Health for All Now' and to endorse the People's Charter for Health (see pp. 68-71)

ing, especially in the non-clinical domains, to implement PHC. Also, greater involvement of traditional practitioners in the health system has been advocated in some countries: achievements in this regard have been limited, with the notable exceptions of China and India where progress largely antedated Alma Ata.

One of the most significant impediments to the successful implementation of PHC, and a major reason for the continued dominance of specialist and hospital-based health care in many countries, has been the substantial failure of most tertiary education health science institutions to adapt their missions and activities to the challenge posed by HFA. Primary health care and public health usually remain marginalised in the formal curriculum and, when present, are often presented in an abstract and theoretical form, with little application to priority health problems and challenges[23].

Further, the training of health professionals mainly at the secondary and tertiary levels of care has meant that health workers are ill-equipped to do primary-level work. If health workers are to render comprehensive care at all levels, their practical and theoretical training must be relevant to addressing the needs of the population. It is urgent, therefore, that district-based health teams receive such training[24].

Additionally, important aspects of management of human resources, such as mechanisms to ensure greater retention and improved support and supervision, have been given insufficient attention. This has contributed to demoralisation and loss of personnel and inefficient and low-quality service provision in the public health sector of many countries[25].

In summary, then, progress in implementation of PHC in developing countries has been greatest in respect of certain of its more medically-related elements (e.g. immunisation, oral rehydration therapy). This strategy of 'selective primary health care' – symbolised in the 1980s by GOBI – has reinforced the 'medical model' and de-emphasised equitable social and economic development, intersectoral collaboration, community participation and the need to establish sustainable and decentralised structures and systems. Thus, the mixed progress in global health reflects the uneven dissemination of effective and robust health technologies, although often in a context of declining health systems, and in a situation of widening disparities in wealth and widespread poverty, resulting in diminished access for many to the basic needs of food, water, sanitation and housing. Acceleration of pre-existing economic, social and political interdependence has resulted in globalisation, characterised by such instruments of economic integration as Structural Adjustment Programmes and sweeping regulation of trade which threaten the economic sovereignty of poorer nations and in the short run have aggravated inequities[26 27].

Proposals for the revitalisation of Primary Health Care

Equitable social investment

In charting the way forward in a world where wealth and health are becoming rapidly and increasingly polarised, it is important to reaffirm the centrality of equitable, broad-based and gender-sensitive development and social-sector investment in achieving substantial and durable health improvements. This is illustrated by the striking success that has been achieved in social development and health by a few poor countries, notably Sri Lanka, Costa Rica, Cuba, China and Kerala state in India. In these countries mortality and malnutrition rates are much lower and life expectancy much higher than in other countries of similar wealth and, indeed, many much-richer countries. An authoritative study of these countries by the Rockefeller Foundation attributed their impressive achievements to a political commitment to equity, secured through strong movements of civil society or social revolution[28]. In all cases this resulted in the provision of universal education and an emphasis on primary health care, as well as the assurance of adequate diets through a combination of land reform and consumer food subsidies. That greater equity has been

While access to essential drugs is much improved, approximately 2 billion people still do not have access to the most important drugs and vaccines.

achieved and is associated with better social statistics, whatever the aggregate wealth of a country, is evidenced by the fact that these poor countries have much lower Gini coefficients (an index of relative equality) than neighbouring states.

Comprehensive Primary Health Care for some common diseases : a summary framework of priority interventions

	INTERVENTION			
DISEASE	Rehabilitative	Curative	Preventive	Promotive
Diarrhoea	Nutrition Rehabilitation	Oral rehydration Nutrition support	Education for personal and food hygiene Breastfeeding Measles Immunisation	Water Sanitation Household food security Improved child care
Pneumonia	Nutrition Rehabilitation	Chemotherapy	Immunisation	Nutrition Housing Clean air
Measles	Nutrition Rehabilitation	Chemotherapy Nutrition Support	Immunisation	Nutrition Housing
Tuberculosis	Nutrition Rehabilitation	Chemotherapy Nutrition support	Immunisation Contacts (tracing)	Nutrition Housing Ventilation
Cardiovascular Disease	Weight loss Graded exercise Stress control	Drug treatment Supportive therapy	Nutrition education Increased exercise Treat hypertension Smoking cessation	Nutrition policy Tobacco control Recreational facilities

Implementing healthy policies and comprehensive programmes

In synergy with equity-oriented social-sector investment, a strategy to revitalise PHC requires the complementarity of 'bottom-up' comprehensive health programme development and 'top-down' policy development and planning. Successful implementation depends on the creation of a facilitatory environment through advocacy, community mobilisation, capacity-building and organisational change backed up by financing and legislation.

Policy development needs to involve those sectors, agencies and social groups critical to achieving better health. Steps include advocating health objectives as integral to socio-economic development, and engaging different sectoral partners and community structures in such a consensual process, which may benefit from setting agreed-upon goals and indicators of progress. Implementation requires functional intersectoral structures, and often laws as well as management instruments and equity-based financing[29].

PHC implementation has often been predominantly facility-based and focused on the curative and preventive components of comprehensive care, while the health promotion movement has stressed the broader social components. The divide between these two initiatives needs urgently to be bridged. Health promotion through Healthy Cities initiatives as well as a focus on other settings, including health districts, can advance the development of healthy policies[30]. The success of such multifaceted initiatives depends on organisational change within (especially) government and an openness to the positive potential of community groups.

Whereas health promotion activities commence with a multisectoral focus, programmes originating around diseases or health problems start from a health-care response. By addressing priority health problems comprehensively through a combination of rehabilitative, curative, preventive and promotive actions, a set of activities common to a number of health programmes will be developed as well as a horizontalised infrastructure. The principles of comprehensive programme development apply to all health problems.

Programme design should be based on an assessment of the seriousness of the problem, analysis of its multifaceted and multilevel causation and of the resources that can be mobilised to address it. Minimum or core service components such as the IMCI guidelines, protocols for clinical management of common diseases etc. should be integral to such comprehensive programmes and replicated at different levels of the health system, including in hospitals[31].

Such programmes need to be in-

tegrated into decentralised district systems. This inevitably requires transformation of both management systems and practice. A primary requirement is appropriate and usable health information for planning programmes and monitoring their implementation[32]. Where such information is lacking, health systems research – which may be fostered in working relationships with academic departments of public health – may assist decision-making[33].

Most district-level health personnel will be based in sub-district facilities such as health centres and clinics. Health centres should be the focal point for comprehensive PHC: personnel teams will therefore need a combination of clinical skills and skills in participatory programme development[34]. Their success can be enhanced by working with and through community health workers: the role of this cadre needs to be re-examined, given their undoubted historical and potential contribution.

Since equity is core to the policy of HFA and current socio-economic and health sector trends are aggravating inequities, capacity to monitor equity in health and health care needs to be strengthened[35].

A prerequisite for the realisation of HFA is sufficient numbers and effective performance of health personnel in all phases of health systems development. The PHCA needs to strongly inform both curriculum and content in all the health sciences as well as the process of, and choice of venues for, learning. Learners at undergraduate and postgraduate level need to be equipped with a broader range of competencies than hitherto has been the case[36]. Expansion of continuing education and training is urgent if system change is to be achieved in the near future. Relevance will be enhanced through problem-oriented and practice-based approaches, preferably involving multidisciplinary teams. To give effect to such changes, teaching staff in many countries also require urgent strengthening of knowledge and skills[37]. Retention of personnel in the public sector is increasingly difficult during the current economic crisis. Urgent attention needs to be given to implementing measures – incentives and regulations – to halt this loss from the public health sector of precious human resources[38].

Maternal Mortality Rate

Country groupings	Maternal mortality per 100,000 live births, 1991	Number of member states included, 1991
Developing countries	421	113
Of which least developed	*727*	*37*
Eastern Europe	41	8
Developed market economies	34	25
Total	**370**	**146**

(Source: Tarimo & Webster 1994, p 39)

Conclusions

It is clear that progress towards Health for All has been uneven. Gains already achieved are under threat from a complex and accelerating process of globalisation and neoliberal economic policies which are impacting negatively on the livelihoods and health of an increasing percentage of the world's population and the large majority in developing countries. Although the global PHC initiative has been successful in disseminating a number of effective technologies and programmes that have reduced substantially the impact of certain (mostly infectious) diseases, its intersectoral focus and social mobilising roles – which are the keys to its sustainability – have been neglected, not only in the discourse but also in implementation.

In terms of implementation, the challenge is to revitalise Primary Health Care by drawing together the best of the PHC experience and the best of the Health Promotion (HP) initiative as well as important associated activities such as those around Local Agenda 21. Here the lessons learned in implementing Healthy Cities projects need to be applied more widely.

The time is long overdue for energetically translating policies into actions. The main actions should centre around the development of well-managed and comprehensive programmes involving the health sector, other sectors and communities. The process needs to be structured into well-functioning district systems which, in most countries, need to be considerably strengthened, particularly at the household, community and primary levels. Here comprehensive health centres and their personnel should be a focus of effort and investment and the reinstatement of community health worker schemes should be seriously considered.

The successful development of decentralised health systems will require targeted investment in infrastructure, personnel and management and information systems. A key primary step is capacity development of district personnel through training and guided health systems research. Such human resource development must be practice-based and problem-oriented and draw upon, and simultaneously reorientate, educational institutions and professional bodies.

Clearly, the implementation and sustenance of comprehensive PHC requires inputs and skills that demand resources, expertise and experience not sufficiently present in the health sector in many countries. Here partnerships with NGOs and expertise in various aspects of community development is crucial. The engagement of communities in health development needs to be pursued with much more commitment and focus. Here the identification of well-functioning organs of civil society, whether or not they presently are active in the health sector, needs to be urgently pursued.

In promoting the above move from policy to action, WHO has to play a much bolder role in: advocating for equity and legislation to facilitate its achievement; pointing out the dangers to health of globalisation and liberalisation; stressing the importance of partnerships between the health sector and other sectors; integrating its own internal structures and activities to ensure that comprehensive PHC programmes are developed; entering into partnerships with and influencing other multilateral and bilateral agencies and donors as well as non-governmental organisations and professional bodies towards a common vision of PHC; and arguing for major investment in health, especially in human resource development, without which HFA will remain a mere statement of intent. ◆

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People's Charter for Health

In an attempt to mobilise a concerted international effort to restore to the development agenda the Alma Ata goal of Health for All, civil society movements, NGOs and women's groups organised a 'People's Health Assembly' in Bangladesh in December 2000. The following Charter was endorsed by the 1,453 participants from 92 countries at the Assembly as a common platform for a worldwide citizen's movement to realise the Alma Ata vision.

Preamble

HEALTH is a social, economic and political issue and above all a fundamental human right. Inequality, poverty, exploitation, violence and injustice are at the root of ill-health and the deaths of poor and marginalised people. Health for all means that powerful interests have to be challenged, that globalisation has to be opposed, and that political and economic priorities have to be drastically changed.

This Charter builds on perspectives of people whose voices have rarely been heard before, if at all. It encourages people to develop their own solutions and to hold accountable local authorities, national governments, international organisations and corporations.

Vision

Equity, ecologically-sustainable development and peace are at the heart of our vision of a better world – a world in which a healthy life for all is a reality; a world that respects, appreciates and celebrates all life and diversity; a world that enables the flowering of people's talents and abilities to enrich each other; a world in which people's voices guide the decisions that shape our lives.

There are more than enough resources to achieve this vision.

The health crisis

'Illness and death every day anger us. Not because there are people who get sick or because there are people who die. We are angry because many illnesses and deaths have their roots in the economic and social policies that are imposed on us.'

(A voice from Central America)

In recent decades, economic changes world-wide have profoundly affected people's health and their access to health care and other social services.

Despite unprecedented levels of wealth in the world, poverty and hunger are increasing. The gap between rich and poor nations has widened, as have inequalities within countries, between social classes, between men and women and between young and old.

A large proportion of the world's population still lacks access to food, education, safe drinking water, sanitation, shelter, land and its resources, employment and health care services. Discrimination continues to prevail. It affects both the occurrence of disease and access to health care.

The planet's natural resources are being depleted at an alarming rate. The resulting degradation of the environment threatens everyone's health, especially the health of the poor. There has been an upsurge of new conflicts while weapons of mass destruction still pose a grave threat.

The world's resources are increasingly concentrated in the hands of a few who strive to maximise their private profit. Neo-liberal political and economic policies are made by a small group of powerful governments, and by international institutions such as the World Bank, the International Monetary Fund and the World Trade Organisation. These policies, together with the unregulated activities of transnational corporations, have had severe effects on the lives and livelihoods, health and well-being of people in both North and South.

Public services are not fulfilling people's needs, not least because they have deteriorated as a result of cuts in governments' social budgets. Health services have become less accessible, more unevenly distributed and more inappropriate.

Privatisation threatens to undermine access to health care still further and to compromise the essential principle of equity. The persistence of preventable ill-health, the resurgence of diseases such as tuberculosis and malaria, and the emergence and spread of new diseases such as HIV/AIDS are a stark reminder of our world's lack of commitment to principles of equity and justice.

Principles of the People's Charter for Health

- The attainment of the highest possible level of health and well-being is a fundamental human right, regardless of a person's colour, ethnic background, religion, gender, age, abilities, sexual orientation or class.
- The principles of universal, comprehensive Primary Health Care (PHC), envisioned in the 1978 Alma Ata Declaration, should be the basis for formulating policies related to health. Now more than ever an equitable, participatory and inter-sectoral approach to health and health care is needed.
- Governments have a fundamental responsibility to ensure universal access to quality health care, education and other social services according to people's needs, not according to their ability to pay.

• The participation of people and people's organisations is essential to the formulation, implementation and evaluation of all health and social policies and programmes.

• Health is primarily determined by the political, economic, social and physical environment and should, along with equity and sustainable development, be a top priority in local, national and international policy-making.

A call for action

To combat the global health crisis, we need to take action at all levels – individual, community, national, regional and global – and in all sectors. The demands presented below provide a basis for action.

Health as a human right

Health is a reflection of a society's commitment to equity and justice. Health and human rights should prevail over economic and political concerns.

This Charter calls on people of the world to:

– Support all attempts to implement the right to health.

– Demand that governments and international organisations reformulate, implement and enforce policies and practices which respect the right to health.

– Build broad-based popular movements to pressure governments to incorporate health and human rights into national constitutions and legislation.

– Fight the exploitation of people's health needs for purposes of profit.

Tackling the broader determinants of health

Economic challenges

The economy has a profound influence on people's health. Economic policies that prioritise equity, health and social well-being can improve the health of the people as well as the economy.

Political, financial, agricultural and industrial policies which respond primarily to capitalist needs, imposed by national governments and international organisations, alienate people from their lives and livelihoods. The processes of economic globalisation and liberalisation have increased inequalities between and within nations.

Many countries of the world and especially the most powerful ones are using their resources, including economic sanctions and military interventions, to consolidate and expand their positions, with devastating effects on people's lives.

This Charter calls on people of the world to:

– Demand the cancellation of Third World debt.

– Demand radical transformation of the World Trade Organisation and the global trading system so that it ceases to violate social, environmental, economic and health rights of people and begins to discriminate positively in favour of countries of the South. In order to protect public health, such transformation must include intellectual property regimes such as patents and the Trade Related Aspects of Intellectual Property Rights (TRIPS) agreement.

– Demand radical transformation of the World Bank and International Monetary Fund so that these institutions reflect and actively promote the rights and interests of developing countries.

– Demand effective regulation to ensure that TNCs (transnational corporations) do not have negative effects on people's health, exploit their workforce, degrade the environment or impinge on national sovereignty.

– Ensure that governments implement agricultural policies attuned to people's needs and not to the demands of the market, thereby guaranteeing food security and equitable access to food.

– Demand that national governments act to protect public health rights in intellectual property laws.

– Demand the control and taxation of speculative international capital flows.

– Insist that all economic policies be subject to health, equity, gender and environmental impact assessments and include enforceable regulatory measures to ensure compliance.

– Challenge growth-centred economic theories and replace them with alternatives that create humane and sustainable societies. Economic theories should recognise environmental constraints, the fundamental importance of equity and health, and the contribution of unpaid labour, especially the unrecognised work of women.

Social and political challenges

Comprehensive social policies have positive effects on people's lives and livelihoods. Economic globalisation and privatisation have profoundly disrupted communities, families and cultures. Women are essential to sustaining the social fabric of societies everywhere, yet their basic needs are often ignored or denied, and their rights and persons violated.

Public institutions have been undermined and weakened. Many of their responsibilities have been transferred to the private sector, particularly corporations, or to other national and international institutions, which are rarely accountable to the people. Furthermore, the power of political parties and trade unions has been severely curtailed, while conservative and fundamentalist forces are on the rise. Participatory democracy in political organisations and civic structures should thrive. There is an urgent need to foster and ensure transparency and accountability.

This Charter calls on people of the world to:

– Demand and support the development and implementation of comprehensive social policies with full participation of people.

– Ensure that all women and all men have equal rights to work, livelihoods, to freedom of expression, to political participation, to exercise religious choice, to education and to freedom from violence.

– Pressure governments to in-

troduce and enforce legislation to protect and promote the physical, mental and spiritual health and human rights of marginalised groups.

– Demand that education and health are placed at the top of the political agenda. This calls for free and compulsory quality education for all children and adults, particularly girl children and women, and for quality early childhood education and care.

– Demand that the activities of public institutions, such as child care services, food distribution systems, and housing provisions, benefit the health of individuals and communities.

– Condemn and seek the reversal of any policies which result in the forced displacement of people from their lands, homes or jobs.

– Oppose fundamentalist forces that threaten the rights and liberties of individuals, particularly the lives of women, children and minorities.

– Oppose sex tourism and the global traffic of women and children.

Environmental challenges

Water and air pollution, rapid climate change, ozone layer depletion, nuclear energy and waste, toxic chemicals and pesticides, loss of biodiversity, deforestation and soil erosion have far-reaching effects on people's health. The root causes of this destruction include the unsustainable exploitation of natural resources, the absence of a long-term holistic vision, the spread of individualistic and profit-maximising behaviours, and over-consumption by the rich. This destruction must be confronted and reversed immediately and effectively.

This Charter calls on people of the world to:

– Hold transnational and national corporations, public institutions and the military accountable for their destructive and hazardous activities that impact on the environment and people's health.

– Demand that all development projects be evaluated against health and environmental criteria and that caution and restraint be applied whenever technologies or policies pose potential threats to health and the environment (the precautionary principle).

– Demand that governments rapidly commit themselves to reductions of greenhouse gases from their own territories far stricter than those set out in the international climate change agreement, without resorting to hazardous or inappropriate technologies and practices.

– Oppose the shifting of hazardous industries and toxic and radioactive waste to poorer countries and marginalised communities and encourage solutions that minimise waste production.

– Reduce over-consumption and non-sustainable lifestyles – both in the North and the South. Pressure wealthy industrialised countries to reduce their consumption and pollution by 90%.

– Demand measures to ensure occupational health and safety, including worker-centred monitoring of working conditions.

– Demand measures to prevent accidents and injuries in the workplace, the community and in homes.

– Reject patents on life and oppose bio-piracy of traditional and indigenous knowledge and resources.

– Develop people-centred, community-based indicators of environmental and social progress, and to press for the development and adoption of regular audits that measure environmental degradation and the health status of the population.

War, violence, conflict and natural disasters

War, violence, conflict and natural disasters devastate communities and destroy human dignity. They have a severe impact on the physical and mental health of their members, especially women and children. Increased arms procurement and an aggressive and corrupt international arms trade undermine social, political and economic stability and the allocation of resources to the social sector.

This Charter calls on people of the world to:

– Support campaigns and movements for peace and disarmament.

– Support campaigns against aggression, and the research, production, testing and use of weapons of mass destruction and other arms, including all types of landmines.

– Support people's initiatives to achieve a just and lasting peace, especially in countries with experiences of civil war and genocide.

– Condemn the use of child soldiers, and the abuse and rape, torture and killing of women and children.

– Demand the end of occupation as one of the most destructive tools to human dignity.

– Oppose the militarisation of humanitarian relief interventions.

– Demand the radical transformation of the UN Security Council so that it functions democratically.

– Demand that the United Nations and individual states end all kinds of sanctions used as an instrument of aggression which can damage the health of civilian populations.

– Encourage independent, people-based initiatives to declare neighbourhoods, communities and cities areas of peace and zones free of weapons.

– Support actions and campaigns for the prevention and reduction of aggressive and violent behaviour, especially in men, and the fostering of peaceful coexistence.

– Support actions and campaigns for the prevention of natural disasters and the reduction of subsequent human suffering.

A people-centred health sector

This Charter calls for the provision of universal and comprehensive primary health care, irrespective of people's ability to pay. Health services must be democratic and accountable with sufficient resources to achieve this.

This Charter calls on people of the world to:

– Oppose international and

national policies that privatise health care and turn it into a commodity.

– Demand that governments promote, finance and provide comprehensive Primary Health Care as the most effective way of addressing health problems and organising public health services so as to ensure free and universal access.

– Pressure governments to adopt, implement and enforce national health and drug policies.

– Demand that governments oppose the privatisation of public health services and ensure effective regulation of the private medical sector, including charitable and NGO medical services.

– Demand a radical transformation of the World Health Organisation (WHO) so that it responds to health challenges in a manner which benefits the poor, avoids vertical approaches, ensures inter-sectoral work, involves people's organisations in the World Health Assembly, and ensures independence from corporate interests.

– Promote, support and engage in actions that encourage people's power and control in decision-making in health at all levels, including patient and consumer rights.

– Support, recognise and promote traditional and holistic healing systems and practitioners and their integration into Primary Health Care.

– Demand changes in the training of health personnel so that they become more problem-oriented and practice-based, understand better the impact of global issues in their communities, and are encouraged to work with and respect the community and its diversities.

– Demystify medical and health technologies (including medicines) and demand that they be subordinated to the health needs of the people.

– Demand that research in health, including genetic research and the development of medicines and reproductive technologies, is carried out in a participatory, needs-based manner by accountable institutions. It should be people- and public health-oriented, respecting universal ethical principles.

– Support people's rights to reproductive and sexual self-determination and oppose all coercive measures in population and family planning policies. This support includes the right to the full range of safe and effective methods of fertility regulation.

People's participation for a healthy world

Strong people's organisations and movements are fundamental to more democratic, transparent and accountable decision-making processes. It is essential that people's civil, political, economic, social and cultural rights are ensured. While governments have the primary responsibility for promoting a more equitable approach to health and human rights, a wide range of civil society groups and movements, and the media have an important role to play in ensuring people's power and control in policy development and in the monitoring of its implementation.

This Charter calls on people of the world to:

– Build and strengthen people's organisations to create a basis for analysis and action.

– Promote, support and engage in actions that encourage people's involvement in decision-making in public services at all levels.

– Demand that people's organisations be represented in local, national and international fora that are relevant to health.

– Support local initiatives towards participatory democracy through the establishment of people-centred solidarity networks across the world. ◆

The People's Health Assembly and the Charter

THE idea of a People's Health Assembly (PHA) has been discussed for more than a decade. In 1998 a number of organisations launched the PHA process and started to plan a large international Assembly meeting, held in Bangladesh at the end of 2000. A range of pre- and post-Assembly activities were initiated including regional workshops, the collection of people's health-related stories and the drafting of a People's Charter for Health.

The present Charter builds upon the views of citizens and people's organisations from around the world, and was first approved and opened for endorsement at the Assembly meeting in Savar, Bangladesh, in December 2000.

The Charter is an expression of our common concerns, our vision of a better and healthier world, and of our calls for radical action. It is a tool for advocacy and a rallying point around which a global health movement can gather and other networks and coalitions can be formed.

Amendment

After the endorsement of the PCH on 8 December 2000 it was called to the attention of the drafting group that action points number 1 and 2 under 'Economic Challenges' could be interpreted as supporting the social clause proposed by the WTO, which actually serves to strengthen the WTO and its neo-liberal agenda. Given that this countervails the PHA demands for change of the WTO and the global trading systems, the two paragraphs were merged and amended.

The section on 'War, Violence, and Conflict' has been amended to include natural disasters. A new action point, number 5 in this version, was added to demand the end of occupation. Furthermore, action point number 7, now number 8, was amended to read '(to) end all kinds of sanctions'. An additional action point number 11 was added concerning natural disasters. ◆

Versions of the People's Charter for Health in other languages are also available at www.phmovement.org.

Individuals and organisations wanting to endorse and help implement the Charter may contact the People's Health Movement Secretariat, CHC, #367, Srinivasa Nilaya, Jakkasandra I Main, I Block Koramangala, Bangalore – 560034, India; email: secretariat@phmovement.org; website: www.phmovement.org.

The world commemorated the 58th anniversary of the bombing of Hiroshima in August this year. The late *Sachchidananda Vatsyayan* (who wrote in Hindi under the pen name Agyeya and who was well known as a novelist, literary critic, journalist and freedom fighter) expressed in the following poem the sense of shock and horror at this act of barbarism.

Hiroshima

Agyeya

On this day, the sun
Appeared – no, not slowly over the horizon –
But right in the city square.
A blast of dazzle poured over,
Not from the middle sky,
But from the earth torn raggedly open.

Human shadows, dazed and lost, pitched
In every direction: this blaze,
Not risen from the east,
Smashed in the city's heart–
An immense wheel
Of Death's swart suncar, spinning down and apart
In every direction.

Instant of a sun's rise and set.
Vision-annihilating flare one compressed noon.

And then?
It was not human shadows that lengthened, paled, and died;
It was men suddenly become as mist, then gone.
The shadows stay:
Burned on rocks, stones of these vacant streets.

A sun conjured by men converted men to air, to nothing;
White shadows singed on the black rock give back
Man's witness to himself.

Translated by **Agyeya** and **Leonard Nathan**


Third World Gallery
Checkmate! - Jodhpur, Rajasthan, India.